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AUTHOR	Rhodes, H. C.
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ABSTRACT

Described are findings from a review of the organization, administration, and effectiveness of special education services in Alberta, Canada (1975-1976). The first part provides an analysis of the relationship of variables (such as district size, per pupil expenditure, and ratio of students to special education staff) to the distribution of level of special education services. Considered in the second chapter are conclusions from a review of the research and a study involving 420 learning disabled and educable mentally retarded students which revealed no difference in the efficacy of regular class or resource room placement. Two chapters present information from interviews with special education teachers and administrators regarding support services to regular and special class teachers. Interview findings focus on such aspects as organization of classes and teaching procedures. A final chapter is devoted to factors related to size and nature of administrative structures. (CL)

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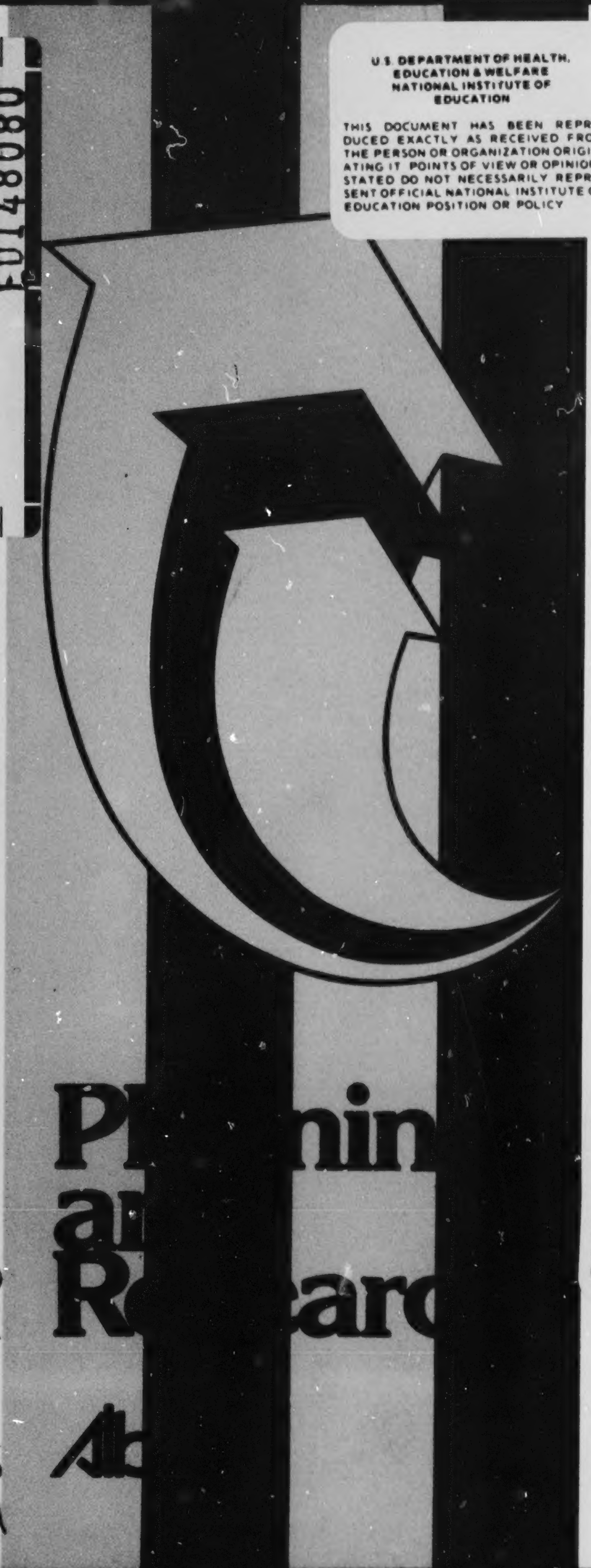
THE ALBERTA SPECIAL EDUCATION STUDY

Organizing Special Education for Moderately handicapped pupils in Alberta Schools:

A Study of Selected Administrative Arrangements and Support Services



CONDENSED REPORT

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EXECUTIVE SUMMARY
# of the
ALBERTA SPECIAL EDUCATION STUDY

WHY THE SPECIAL EDUCATION STUDY?

Between 1971 and 1976 there was a rapid increase in special education teacher positions for the instruction of moderately handicapped pupils (from 584 to 1,250 positions). Difficulties in filling teacher positions and finding sufficient professional support services accompanied this increase. The assumption that some type of segregation was necessary for effective remediation required examination.

This study reviewed the organizational, administrative and financial arrangements during 1975 - 1976, and related these to both the AMOUNT and ADEQUACY of special education services.

A number of specific questions were posed to guide the several parts of the study.

PART I: WHAT ARE THE FACTORS ASSOCIATED WITH (1) THE AMOUNT OF SPECIAL EDUCATION SERVICES PROVIDED BY ALBERTA SCHOOL SYSTEMS AND (2) THE EQUITY OF THE DISTRIBUTION OF SERVICES?

The proportion of elementary and junior high students directly supported by the SETP (Special Education Teacher Position) grant and the proportion in school programs funded by SETP, Educational Opportunites Fund (EOF) Compensatory and Remedial and Learning Disabilities Fund (LDF) grants or combinations of the three in 1975-76 were analyzed to see if any differences existed in the amount of services offered and the equity of distribution of these services according to factors assumed to be related.

Findings and Conclusions:

1. **The First Measure:** The provincial proportion of handicapped students enrolled in grade 1-9 receiving support from the Special Education Teacher position Grant (STEP) was over 6% or 20,010 students.

No significant relationships were found between amount of services provided and such factors as remoteness, size, wealth (assessment base), level of expenditures for education, population density, status as rural or urban, public or separate, type and level of staff training and other manpower factors.

Conclusion: The service was remarkably uniform across Alberta according to the factors noted above.

2. **The Second Measure:** The provincial proportion of handicapped students served under all Alberta Education special funding (SETP grant, Educational Opportunities Compensatory and Remedial, Learning Disabilities Fund, or combinations of these):

- nearly 10% (9.7%) were receiving remedial service based on all types of special funding;
- the amount of service delivered was significantly affected by four of the 14 factors;
- there was significantly more service in remote areas of Alberta and where the percentage of registered native children enrolled was high;
- the amount of service was greater in disadvantaged areas with relatively lower per pupil assessments.

Conclusion: Areas with greater needs did receive greater amounts of service.

Recommendations:

- Existing SETP, EOF and LDF grants are effective methods to provide financial support for Special Education and should be continued.

- The quality of the services provided under the special funding arrangements warrants examination.

PART II: HOW DO RESOURCE ROOMS, SEGREGATED SPECIAL CLASSES AND REGULAR CLASSROOMS COMPARE IN SPECIAL EDUCATION FOR CHILDREN WITH VARIOUS TYPES OF MODERATE HANDICAPS?

An extensive review of research literature was used to answer this question.

Findings and Conclusions:

1. Academic objectives for Educable Mentally Handicapped (EMH) pupils (50-80 IQ range) tended to be best served in non-segregated classrooms or resource rooms. Non-academic objectives for this group could be achieved in either setting.

2. Learning Disabled (LD) pupils (normal IQ range but grossly underachieving in some aspects of school work) were reported to achieve as well in regular classrooms as in segregated ones, **provided instruction is modified**. If regular instruction is not modified, the students achieved better in segregated or partially integrated classes. For non-academic development there was no difference between regular and segregated classes.

3. When considering the academic progress of mixed classes of EMH and LD pupils, only a slight advantage existed for a resource room setting. However, this conclusion is based on only three studies.

Recommendations and Implications:

The results of the effectiveness studies did not reveal enough consistent and unambiguous differences to permit definite conclusions. Therefore it is recommended that:

- the existing Type B (for teaching the moderately handicapped) Special Education Teacher Position Grant be retained and the funds continue to support present use at the option of school systems.
- However, sufficient evidence exists to support the recommendation that these type B grants be permitted, at the option of school systems, to be used to employ special class teachers, perhaps full-time, as a resource to regular classroom teachers. It is recommended that this option be subject to the conditions contained in the report.

Implication -- In order to exercise this option, local school systems would need to deploy special teachers as school-based personnel, serving as a resource to regular teachers, rather than to special segregated classes as is the dominant current practice.

Feasibility -- A review of relevant literature indicated that this shift in role was feasible and necessary. The results of follow-up studies underlined the importance of providing assistance to regular class teachers.

PART III: WHAT ARE THE PERCEPTIONS OF ALBERTA SPECIAL CLASS TEACHERS AND THEIR ADMINISTRATORS OF THEIR ROLES AS A RESOURCE TO REGULAR CLASS TEACHERS?

A sample of special class teachers and their administrators were interviewed and asked to respond to the following questions:

1. How willing is the special class teacher to provide resource services to regular teachers?
— Average response near "willing" (4 on a 5-point scale).

2. What is the perceived willingness of regular class teachers to receive this service?
— Average response between "sometimes willing" and "willing" (about 3.5 on a 5-point scale).

3. How frequent is the service?
— Both groups perceived the service to regular teachers as occurring between "infrequently" and "sometimes" (near 2.5 on a 5-point scale).

4. How adequate is the existing service?
— "Sometimes adequate, sometimes inadequate" was the mean response (mid-way on the 5-point scale).

The responses to open-ended questions in the interview revealed general agreement to a change in role emphasis for special class teachers.

Recommendations:

It is recommended that school systems, in consultation with Alberta Education:

- develop guidelines, job descriptions and role expectations for resource teachers;
- provide orientation to teachers and administrators;
- implement the necessary inservice programs; and
- that Alberta Education recommend to Alberta university faculties of education that consideration be given to including this support role for special education teachers in preservice programs.

PART IV: WHAT ARE THE SOURCES, FREQUENCY AND ADEQUACY OF PROFESSIONAL SUPPORT SERVICES USED BY SPECIAL EDUCATION TEACHERS AND THEIR ADMINISTRATORS?

Both special class teachers and their administrators similarly rated the adequacy of auxiliary specialist support services. The order of perceived assistance (highest to lowest) was from: school system personnel, health workers (public health nurses rated high), psychologists (excluding those from the Learning Assistance Centre and Learning Assistance Field Service), speech therapists, social workers and psychiatrists.

PART V: IN WHAT WAYS DO SYSTEM AND NATURE OF ADMINISTRATIVE STRUCTURES AFFECT PROVISIONS OF SPECIAL EDUCATION SERVICES?

Special class teachers saw the teacher as making the greatest number of decisions regarding the placement of special education students. Administrators and consultants were seen as next influential, with parents being least influential.

Approximately 80% of the special class teachers felt that their present arrangements for transferring students to or from special classes were "adequate" or "very adequate". Open-ended comments supported the adequacy ratings and also suggested greater involvement by both educators and parents.

A review of American literature on the size and nature of administrative structures for providing special education on a regional inter-district, shared-services basis led to the following conclusions:

- some school jurisdictions, because of limitations in size, cannot easily provide the kind and range of specialized service they would like;
- regional shared-services arrangements represent a viable alternative to an independent operation;
- guidelines for organizing and implementing shared services are available from the literature and the Alberta experience;
- the formation and continued operation of regional shared-services is dependent upon some government promotion and continuing support.

HOW TO OBTAIN COPIES OF THE CONDENSED REPORT (50 pages) AND COMPLETE REPORT OF THE **ALBERTA SPECIAL EDUCATION STUDY**

The complete report may be borrowed from the Planning and Research Branch and Regional Offices of Alberta Education, University libraries or purchased from the ERIC Document Service.

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THE ALBERTA SPECIAL EDUCATION STUDY
ACKNOWLEDGEMENTS

Without the assistance of many individuals this study would not have been successfully completed. Special education teachers and their administrators who provided a large amount of data in the interviews are particularly thanked as are the superintendents who were asked for additional information. We hope they and their colleagues will profit from the findings.

Part 1 of the study, after data collection, was undertaken by Dr. Cec Brown of the firm of Arctic Mackenzie Consultants Limited. He and Dr. Peggy Brown of the same firm contributed to other sections of the report. Their analytical skills and attention to detail enhanced the quality of the report in many ways and provided a necessary verification of the findings.

A large number of personnel from Alberta Education were involved in gathering interview data and articles from the literature. Interviews were very ably conducted by the following special education consultants and supervisors: Dale Bellin, Harvey Finnestad, Bernard Fossen, Marg Hatch, Ed Lau, Bill Lockhart, Ken McKie, Henry Minto, Jean Moore and Ken Shields. Mr. Shields was employed for an extended period in the extensive reviews of the research literature which form the basis for several sections of the report. In this he was ably assisted by Cathy Perry and her colleagues from our library. This group left no stone unturned in the attempts to find relevant information from other studies. Marlene Cust, a graduate student in special education, contributed to one portion of the reviews. Another graduate student, Nancy Wood, performed yeoman service in final editing tasks. Advice and assistance provided by Mary Layman and Janice Colter of the Communications Branch are also acknowledged.

The support staff from the Planning and Research Branch cheerfully and expertly attended to many tasks associated with the study. Among those involved were Lynn Sereda, Bonnie Sawchuk and Sandy Forest. Deiter Fehlberg and colleagues from the Data Processing and Student Evaluation Branch provided service of high quality in the analysis of the interview responses.

The steering committee established to provide guidance to the study consisted of Dr. Mel Fenske (Chairman), Dr. Jack Church, Mr. Ken McKie and Mr. Chris Underwood. Their assistance and advice represented a substantial contribution at crucial stages in the investigation.

Finally, acknowledgements and thanks are extended to colleagues in the Planning and Research Branch of Alberta Education who occasionally assumed extra work or were inconvenienced as a result of the priority assigned to this report. Dr. W. R. Duke, Director of the Branch, intervened at several points to provide additional resources when these were required.

H. C. Rhodes
Summer, 1977

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BACKGROUND AND OVERVIEW TO THE STUDIES CONCERNING ADMINISTRATIVE ARRANGEMENTS AND SUPPORT SERVICES FOR MODERATELY HANDICAPPED PUPILS AND THEIR TEACHERS

One of the ways Alberta Education assists school boards in meeting the needs of handicapped pupils is through the Special Education Teacher Position (SETP) grant. This grant supplements revenues provided within the School Foundation Program Fund Regulations and other grants to finance the operation of special classes and resource rooms. In four years the number of special education teacher positions which have qualified for grants has increased 114 percent (1971-72 - 584, 1975-76 - 1250). This rapid increase has been accompanied by a number of problems. For example, teaching positions have been difficult to fill and sufficient professional support services have not always been available. In addition, the burgeoning in numbers of resource rooms is based on an assumption that it is best to remove the moderately handicapped pupil from the regular class for remedial instruction. One alternative has been to retain pupils in the normal setting and to provide special assistance and materials to the regular teacher. In this vein, Brown (1968) and Sparks and Blackman (1965) have stated that special education arrangements are often based on untested assumptions. McKerracher (1972) has reiterated this in writing that

> (R)ather than stress the proliferation of special class teachers, more emphasis should be placed on equipping regular class teachers with remedial skills and responsibilities to allow them to develop coping strategies within their own classrooms.
> (ATA Newsletter, 1972, p.8)

The recent expansion of segregated groupings, problems in staffing, and the use of alternative practices in providing remediation in regular classrooms suggested that the time was opportune to take stock.

Accordingly, answers were sought to Research Question #1:

- What are the relative merits of resource rooms, segregated special classes and regular classes in achieving the objectives of remedial instruction?
- What types of students seem best served in each setting?
- What are the implications of the findings for Alberta Education?

The Part 11 of this executive summary and the full report provide answers to the foregoing. Answers to other questions generated to guide additional aspects of this study are reported in other sections.

The Special Education Teacher Position grant was mentioned above. Two other provincial grants have been used by school systems to support remedial instruction in Alberta. One is the Learning Disabilities Fund (LDF) grant used to employ professionals to assist in diagnosis, program planning and speech therapy. A second type of grant is represented by the Educational Opportunity Fund (EOF) which has often been used to support elementary school remedial instruction projects, particularly resource rooms. Finally, the EOF (Compensatory) grants have been provided to nearly twenty school systems which have met criteria which include low assessment and disadvantagedness.

The combined effect on the amount and distribution of support service to handicapped pupils of the SETP, EOF remedial, EOF compensatory and LDF grants was the subject of a correlational study. A separate analysis examined the amount of service (proportion of grade 1-9 pupils served) and its distribution attributed to the traditional-type funding provided by the SETP grant alone. The correlational studies examined a number of assumptions which are often held with respect to the provision of special education service. Included are the assumptions that the amount of service tends to be lower if the school system is characterized as any or all of the following: small, remote, rural, sparsely settled, low taxation base, lacking in specialized staff and enrolling a higher proportion of registered native children.

Amount of service relative to combined special provincial grants and the SETP grant alone were analyzed in relation to fourteen variables which the literature indicated as relevant. The question framed to guide these input-output analyses asked for the degree of relationship between fourteen predictor variables and proportion of grade 1-9 enrollment receiving remediation assistance at least partly funded by the aforementioned grants. Part 1 of the executive summary and the full report outline the findings.

Additional questions were formulated to guide other aspects of the special education study. These encompassed the special class teachers' roles as resource personnel to support regular teachers and as diagnosticians, program planners and program implementors (Part 111).

Additional support to handicapped pupils and their teachers is provided by professionals employed by Alberta Education and other departments of the provincial government. The kind, frequency and adequacy of these services as well as those provided by school system personnel are reported as perceptions held by special education teachers and their administrators. The judgements of special education teachers were gathered relative to the value of various teaching strategies employed. The findings from this aspect of the study are reported in Part 1V of the reports.

Finally, a short section is devoted to regional shared services - administrative arrangements involving two or more school systems and the judgements of special education teachers relative to the appropriateness of procedures for transferring students in and out of remedial groups (Part V).

PART 1

AN INPUT-OUTPUT ANALYSIS OF THE RELATIONSHIP OF SELECTED VARIABLES TO THE DISTRIBUTION OF LEVEL* OF SPECIAL EDUCATION SERVICES THROUGHOUT ALBERTA

Research Question #11

Re: the factors associated with the
amount of service provided by
Alberta school jurisdictions

What are the relationships between certain predictor variables and amount of service (proportion of students served)? Specifically, the amount of service and these variables: Zone; Rural vs Urban status; Public vs RCS; and Size--small, medium, and large; Sparsity; Assessment/pupil; Level of training of teaching and administrative staff; Remoteness--distances to a university and the nearest diagnostic centre; Staff training in special education and related areas; Proportion of registered native population; Ratios of Designated special education staff and regional mental health staff to grades 1-9 enrollment; and Designation of full-time special education leader.

* LEVEL - in this report the word amount is equivalent in meaning to the word level and, thus, both words are used interchangeably.

Summary and Conclusions

A study by Rawlyk (1974) during the 1972-73 school year in Saskatchewan examined a number of variables that were expected a priori to relate to the level of special education services provided for handicapped students in grades 1-9. These variables were determined by administrative jurisdiction and included measures of district size, pupil density, economic factors, professional training, specialist availability and public-separate status. Rawlyk (1974) reported only 5 percent[1] of the grade 1-9 population were being serviced in special education compared to the generally accepted theoretical figure of 10 percent in need of special services. Considering this total proportion of students served by district as a criterion, it was found that only the level of teacher training in special education and related subjects, central geography, and the existence of full-time leadership in special education were related. Contrary to common expectations, none of the other variables were useful in predicting the level of service provided.

The Study

Because of the implications of the Rawlyk (1974) findings for special education policy, the Alberta Education Planning and Research Branch in 1976 undertook the replication of the relevant aspects of the Saskatchewan study. One hundred and thirty-one jurisdictions in Alberta were included in the study. This represented nearly all those in the province excluding those under the Northland School Division and the Department of National Defence. Two criteria for service were examined,

1. the percent of students (grades 1-9) who received special education in:
   - special classes or resource rooms funded by the Special Education Teacher Position Grants (SETP), and
   - the Educational Opportunity Fund (EOF) remediation project classes, EOF compensatory project classes, or regular classes on individualized remedial programs where diagnostic and/or program planning was provided entirely or in part by Learning Disabilities Fund (LDF) funded specialists.
2. the percent of students served only through the SETP grants.

Fourteen predictor variables and 17 predictor control variables were examined for their relationship to the criterion variables. These were as follows:

1. Predictor variables
   V7 - district size
   V8 - pupil density per square mile
   V9 - assessed valuation per child enrolled
   V10- per pupil expenditure
   V11- mean salary of professional staff

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[1] Average of school district means; therefore, not a weighted average which consider the varying enrollments between jurisdictions.

V12 - mean level of professional training
V13 - mean number of related course units
V14 - ratio of students to special education staff
V15 - ratio of students to diagnostic specialists
V16 - percent "treaty" native
V17 - leadership in special education
V19 - distance to a university
V20 - distance to a diagnostic centre
V21 - supplementary mill rate

2. Predictor control variables
V23 to V32 - zone or geographic region
V33, V34 - rural or urban status
V35, V36 - public or separate status
V37, V38, V39 - district size (small, medium, large)

These variables were selected for compatability with the Rawlyk (1974) study.

Findings

It was found that Alberta Education in 1975-76 provided service for 20,010 handicapped children under the SETP grants; 6,861 handicapped children in EOF remedial and EOF compensatory where diagnostic or program planning service were provided by personnel at least partly funded by the LDF grant; and 3,783 handicapped students in regular classes or individualized programs planned by LDF funded specialists. A total of 140 handicapped children known to the district superintendents did not receive special education services in the 1975-76 school year. The total proportion of handicapped students served under all Alberta Education special funding programs was 12.95% of the grade 1-9 population.[2] When total enrollment, and not the average by school system was considered, the proportion became 9.7%. This approximates the commonly accepted theoretical expectancy of ten percent of students in need. Students served under the SETP grants comprised over one-half (6.51 percent) of the total students served.

Considering the criterion variables separately for rural/urban status, public/separate status and jurisdiction size a number of significant findings resulted. Where total service related to all special funding was considered, rural jurisdictions had a greater mean level of service (13.10 percent) than the urban jurisdictions (7.98 percent). Catholic separate jurisdictions served a greater proportion of its students (16.13 percent) under the combined special funding arrangements than the public jurisdictions (11.04 percent). No significant differences were noted under either breakdown for the proportion of students served through the SETP grant scheme alone. Small and medium jurisdictions had greater percentages of students served (13.34 percent and 12.92 percent) than large jurisdictions (9.29 percent). Considering the SETP grants, large jurisdictions provided the highest level of service (9.20 percent), followed by small jurisdictions (6.32 percent) and medium jurisdictions (3.43 percent).

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[2] Computed to accomplish compatability with the Saskatchewan study. Average of school system means and not a weighted average based on total provincial grade 1-9 enrollment. Based on a provincial total of 314,149 the percentage served equals 9.7%.

For each of the criterion variables, the predictor and predictor control variables were entered into a regression analysis to determine which (if any) significantly contributed to the prediction of level of service provided by jurisdictions under the special grants. Predictor control variables were separately combined with the predictor variables in separate analyses. For the first criterion, (the proportion of students served in total by SETP, EOF and LDF grants), significant predictors were (in order of contribution): distance to a diagnostic centre; percent native; distance to a university and assessed valuation per child enrolled. This held when the predictor variables were combined with the rural/urban, public/separate and district size predictor control variables. When zones were included in the analyses significant predictors were (in order): zone 1 (Peace River); distance to a diagnostic centre; percent native and distance to a university. The appearance of zone 1 as a significant predictor was not unexpected since it has been the major beneficiary of the EOF compensatory funds. The reason for this is that zone 1 contains a number of school systems which have been able to qualify through low assessment and demonstration that the students are disadvantaged. Correlations between the predictor and control variables with the first criterion variable indicated that level of service increases with increasing distance to a diagnostic centre, percent native students and distance to a university. Level of service also increases with decreasing valuation per pupil enrolled. For the second criterion variable (proportion of students served through SETP support alone), none of the predictor variables contributed significantly to the prediction - except in the analysis which included zones. In that analysis, zone 2 (North Central West) showed a small degree of predictability which did not warrant further consideration.

The interpretation of the results was straight forward. All measures which significantly related to the first criterion variable may be seen as generally accepted indices of advantage/disadvantage. For instance, jurisdictions which are small, rural, separate and/or remote (as reflected in distances from diagnostic centres and universities) are generally considered less able to provide special services than their large, urban and/or public counterparts. In each case, as the degree of disadvantage increased so did the level of special education service provided. The same may be seen with the assessed valuation per child enrolled. As a rough measure of wealth or ability to fund education, assessed valuation per child enrolled was inversely related to the first criterion variable. This means that percent of students served under the special funding increased as this index decreased.

The first criterion studied considered the amount of service when all special grants were considered, and, as expected, due to the differential compensatory funding provided in Alberta, a positive relationship was found between amount and distance, remoteness and proportion of registered native children enrolled. An inverse relationship was found between amount and the index of wealth; the lower the equalized assessment per pupil, the greater the service provided.

Accordingly, some of the assumptions about factors related to level of special education service were not upheld. When the traditional, universally - applied special grant was considered (the SETP--second criterion variable) there was no relationship to any of the variables studied. Distance, size, remoteness, sparsity, wealth and the several human resource variables were shown to be unrelated to level of service in Alberta.

Conclusions

In the Alberta study different variables were found to predict the level of special education services than those reported in the Saskatchewan study (Rawlyk, 1974). This was not unexpected. Alberta Education had implemented a system of grant and specialist support in an effort to increase the level of special education services and to equalize the opportunity for handicapped students to receive the services. The results reported herein confirm the success of these programs. Overall level of service (average by district) to handicapped students in Alberta (12.95 percent) far exceeded the level of service reported by Rawlyk (1974) for the 1972-73 school year in Saskatchewan (5.0 percent). The overall level of service based on a weighted average (9.7 percent) closely matched the commonly used standard (10.0 percent). Support to the more disadvantaged jurisdictions has permitted them to offer a higher (externally supported) level of special education service than the more advantaged jurisdictions. This has not been accomplished at the expense of the more advantaged jurisdictions which also enjoy a high level of service supported through the more traditional special education funding.

Recommendations

The following recommendations arise out of the study:

I. IT IS RECOMMENDED THAT SUPPORT FOR SPECIAL EDUCATION BE CONTINUED THROUGH THE SETP, EOF AND LDF. With respect to amount, these special sources of funding have impressively served the purposes for which they were created.

II. IT IS RECOMMENDED THAT THE QUALITY OF THE SERVICES PROVIDED UNDER THE SPECIAL FUNDING ARRANGEMENTS BE EXAMINED. This study has shown that the amount of service promoted under the special grants has been successful. It is now important to determine the adequacy of these services in terms of quality.

Concerns about quality of existing service receive attention in two sections of this report:

Part 11 (reported next) examines in a very general way qualitative aspects of resource rooms and other arrangements for providing service; and

Part 1V reports the perceptions of Alberta educators concerning the adequacy of support services.

PART 11

LITERATURE REVIEW
AND THE CENTRAL ALBERTA
STUDY CONCERNING RESOURCE
ROOMS AND OTHER SETTINGS
FOR REMEDIATION

Research question #1

What are the relative merits of Resource Rooms, Segregated Special classes and Regular Classrooms in achieving the objectives of remedial instruction?

What types of students seem best served in each setting?

What are the implications of the findings for Alberta Education relative to leadership, regulations and funding?

Efficacy Studies of the Relative Merits of Resource Rooms, Segregated Special Classes and Regular Classrooms in Achieving the Objectives of Remedial Instruction

This phase of the Special Education Study examines the research evidence concerning the integration - segregation issue. Whether pupils are best placed in an integrated or segregated setting is important to those concerned with providing the most efficacious arrangement for remediation.

Since constraints of time and logistics did not permit the investigators to implement new studies, the existing research literature regarding placement of pupils for remediation was critically reviewed. Thus, in general terms only, answers were sought to the questions about the quality of remediation under various arrangements. Unfortunately, with one exception, the studies reviewed were based on teaching situations and restricted student populations based in other countries. Accordingly, they lack external validity. That is, the results may not be generalizable to the Alberta scene.

The exception is the study reported by Rhodes (1976) which compared the academic outcomes between resource rooms and regular classrooms in zone 4 in central Alberta. Here the schools, programs and teacher and pupil populations were sufficiently numerous and varied to permit generalizations. This was the only Canadian - based study[3] which met the selection criteria established for inclusion in the review.

The criteria used for selection of studies were that they be empirically-based, have internal validity and provide comparisons between different degrees of segregation. The empirical basis requirement meant that articles based on opinion and speculation were excluded; the results of pupil outcomes had to be expressed quantitatively. The internal validity criterion was the crucial one in judging the merits of a study. It answers the question whether or not the results are due to the remediation treatment. This meant that only those studies which employed a comparison group were included. Reports of studies which used a pretest-posttest single-group design or compared the results against a standardized test norm were excluded to ensure a reasonable degree of internal validity.

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[3] An evaluation of an Alberta EOF compensatory project (Dryden & Nygaard, 1976) also met the selection criteria but was not included because it did not compare resource rooms with regular classrooms or segregated special classes. For the same reason an evaluation of an EOF remedial Project by Bienert (1977) was not included.

The threats to internal validity listed by Campbell and Stanley (1966) were used as a checklist in selecting studies for review. The best studies were those that employed a true experimental design which had pupils randomly assigned to two or more of segregated, partially-segregated or integrated groups. There were few of these. Most of the investigators had been compelled to use existing classes. In order to render the groups more comparable, students in each group were often paired (matched) on mental age, chronological age and achievement. Campbell and Stanley (1966, p.49, 70-71) have written disparagingly of matching as a technique to establish equivalence. Instead, they recommend the use of multiple covariate analysis of covariance, a statistical procedure, to adjust posttest scores according to differences on pretest measures. As with random assignment, studies which employed this procedure were very few in number.

Accordingly, the results from the review of the literature (discussed next) should be considered with caution. The reasons for this admonition are as follows:

1. The issue of integrated versus segregated settings for remediation has never been rigorously studied. The reason is that instructional variables have never been held constant across the comparisons. Accordingly, placement per se has not been isolated for examination. Perhaps the difference, or lack of difference, in many of the comparisons has been due to instructional factors and quite unrelated to administrative arrangement.

2. As noted previously, the external validity or generalizability of the findings to Alberta are not known. The studies were based in other countries and often involved very restricted and different (to Alberta) pupil populations and teaching situations. Some of the investigations reported were conducted during the 1930-1960 period. As a consequence, the application of new techniques such as contingency-management, programmed materials and technological aids such as the language master would not be reflected in the results.

3. The adequacy of the criterion measures used in student achievement studies is always a concern to researchers. This problem is particularly acute in measuring achievement of handicapped learners who sometimes have difficulty with the format of the standardized group test. As a result, the measures used may often have been inadequate in detecting shifts in development which actually occurred.

TABULATED RESULTS FROM THE REVIEWS OF THE EMPIRICAL RESEARCH ON THE DEVELOPMENT OF MODERATELY HANDICAPPED PUPILS IN VARIOUS INSTRUCTIONAL SETTINGS

The studies selected for review involved comparisons according to the degree of segregation from regular class students. The comparisons for each of Educable Mentally Handicapped pupils (EMH; IQ range 50-80), Learning Disabled pupils (LD; normal IQ range but grossly underachieving in some aspect of schooling), and Non-Categorical pupils (groups consisting of EMH, LD and other handicapping conditions) were as follows:

1) regular classrooms (total integration of remedial students) versus segregated special classes (total segregation for much of the school day),

2) regular classes versus resource rooms (partial integration) and

3) segregated special classes versus resource rooms.

The symbols in tables 1 (p.13) and 2 (p.16) refer to these definitions:

Reg. = regular classroom
Res. = resource room
Seg. = segregated classroom
> = symbol meaning "greater than". In this instance > means that the mean differences are statistically significant at the .05 level (the probability is five chances or less in one hundred that the differences are due to chance factors) and are in favor of the category preceding the symbol. e.g. Reg.>Res. signifies that the regular classroom group gained, or improved, significantly more than the resource room group.
NS = no statistically significant difference in the comparison.

CONCLUSIONS

The conclusions derived from the review of the literature concerning the relative efficacy of resource rooms, segregated special classes and regular classes are enumerated according to:

1) general type of handicapping condition (educable mentally handicapped, learning disabled and non-categorical), and

2) category of objectives for special education (cognitive and affective).

Educable Mentally Handicapped (See Table 1)

Cognitive domain objectives The principle conclusions derived from the review of studies of children in the 50 to 80 IQ range in relation to academic achievement and cognitive functioning are based on the following:

1) Most of the studies reviewed show no significant differences between regular class and some form of segregation.

2) Those that show significant differences favour either regular class or resource room over segregated special class.

3) Two studies employed a true experimental design which controlled for selection. In the longitudinal (4 year) study of primary school children by Goldstein et al (1965) the general finding was no difference between regular class and segregated special class in academic achievement and IQ change. A nonsignificant finding was also reported by Smith and Kennedy (1967) for IQ development in their comparison of resource rooms and regular classes.

The general conclusions based on the foregoing are:

1) The research to date has not definitely established the best placement for moderately handicapped EMH children with respect to cognitive development and academic achievement.

2) There is virtually no evidence to support segregation to achieve cognitive objectives.

3) The weight of the findings suggest that either integration in regular classes is advisable, or the locus of instruction does not matter. (Perhaps instructional variables, and not these administrative arrangements, are crucial to success.)

The low relative academic achievement or lack of difference with achievement in regular class, by EMH pupils in segregated classes has been explained by the emphasis in segregated classes on goals in the affective domain. If this is the case, the segregated setting should result in superior gains in the affective domain.

Table 1

Classroom Groupings of Educable Mentally Handicapped Students in Various Achievement Areas: Comparisons According to Degree of Segregation

Student Category	Achievement Area	Comparisons and Findings (frequencies)								
		Reg > Seg	Seg > Reg	NS	Reg > Res	Res > Reg	NS	Res > Seg	Seg > Res	NS
EMH	Reading Comprehension	8	0	11	0	0	2	2	0	4
	Reading: other	2	0	7	0	0	3	0	0	3
	Spelling	6	0	8	0	0	2	0	0	2
	Arithmetic	11	2	9	0	0	3	0	0	4
	Intellectual	1	1	4	0	0	1	-	-	-
	Cognitive Total	28	3	39	0	0	11	2	0	13
	Self Concept	1	2	2	2	0	0	-	-	-
	Motivation, Adjustment	1	0	4	-	-	-	-	-	-
	Social	0	5	10	0	0	2	-	-	-
	School Attitude	1	4	1	-	-	-	-	-	-
	Peer Acceptance	0	3	1	0	0	1	1	0	0
	Behavior	3	1	4	0	1	1	0	0	1
	Affective Total	6	15	22	2	1	4	1	0	1

Note: The numbers in the table refer to the total number of studies reported. For example, the number 8 in the Reg>Seg column signifies that 8 studies reported significant gains for reading comprehension in the regular classroom group as compared to the segregated classroom group.

Affective domain objectives Three of the investigations reviewed used the true experimental design in comparing achievement in the affective areas between regular and segregated classes. Goldstein et al (1965) found no difference in social knowledge. Meyerowitz (1962) found no difference relative to self-concept. Gotlieb and Budoff (1972) found the segregated class inferior to regular class in attitude toward school. However, the opposite was true for acceptance by normal peers.

The general conclusions are:

1) For self-concept the results are mixed, with those that show a difference favoring some form of integration (3:2).

2) For motivation and personal adjustment no differences can be attributed to either segregated or regular class arrangements.

3) Support for segregated special classes for the EMH child relative to social development was provided by the literature. While none of the researchers found regular class superior to segregated, five demonstrated segregation as superior. In ten other studies no significant differences were found. These findings must be qualified in that a number used teacher ratings as measures of social development. Since special class teachers are thought to operate from a different perspective than regular class ones this may have resulted in inflation of social development scores in special classes. Two studies comparing resource and regular settings found no difference in measures of social development.

4) Additional support for segregated special classes is generated by the findings concerning attitude toward school and teachers, and acceptance by peers. Only the Gotlieb and Budoff (1972) study favored regular over segregated class groupings on the attitude criterion. No studies, including the Gotlieb and Budoff study, found regular class superior to the segregated class on measures of peer acceptance. The two studies on peer acceptance involving resource rooms revealed no difference in a comparison with regular class and a difference in favor of partial integration over segregation.

5) Support for total segregation is not found in the studies which assessed behavior. However, Glavin et al (1971) found the partial integration of the resource room superior to regular class.

In general, strong support exists for use of the segregation model for moderately retarded pupils when acceptance by peers has priority. Moderate support is provided when attitude toward school and teachers, and social development are the objectives. Minimal evidence exists to justify segregated arrangements for development of self-concept. In the areas of motivation, personal adjustment and behavior virtually no justification exists for segregated arrangements.

In contrast to achievement of cognitive objectives (where no support for total segregation was found) some of the objectives in the affective domain are achieved in varying degrees when segregation is practised. Unfortunately, there were relatively few studies which compared partial segregation (the resource room) with total segregation. Three of these showed benefits in affective areas which were attributed to resource rooms and one showed no difference. Most of the findings based on comparisons of regular class and resource rooms reported no difference results. The one showing a difference (Glavin et al, 1971) indicated partial segregation superior to total integration.

The Learning Disabled (See Table 2)

Cognitive domain objectives Unlike the numerous investigations concerning academic achievement of EMH children, those involving LD children favor some form of segregation. However the limited nature of the evidence available suggests that the issue of integration versus some form of segregation for the learning disabled has not been resolved. The only study which compared resource and regular class settings followed the typical practice of not modifying instruction in the regular class. In spite of this Glavin et al (1971) reported half their findings as not significant with the other half showing the resource room as superior. The other investigation which employed a true experimental design compared the segregated and regular class (Bradfield et al, 1973). In this instance instructional arrangements were modified in the regular class. This particular regular class arrangement was found to be superior in arithmetic, but there was no difference in reading.

The degree of severity of the handicapping condition which characterized these children is not evident from the reports. Accordingly, it is not possible to compare effects of different placements for the severely and moderately learning disabled.

Affective domain objectives As in the area of cognitive development for the LD there is a paucity of research relative to the most effective placement when affective domain objectives are the focus.

Table 2

Classroom Groupings of Learning Disabled or Non-Categorical Students: Comparisons of Various Achievements According to Degree of Segregation

Student Category	Achievement Area	Comparisons and Findings (frequencies)								
		Reg > Seg	Seg > Reg	NS	Reg > Res	Res > Reg	NS	Res > Seg	Seg > Res	NS
LD	Arithmetic	1	1	0	0	1	1	-	-	-
	Reading	0	1	1	0	1	1	-	-	-
	Cognitive Total	1	2	1	0	2	2	-	-	-
	Behavior	0	1	1	0	1	0	-	-	-
	Social-emotional	0	0	1	-	-	-			
	Self-concept	0	0	1	0	0	1	-	-	-
	Teacher attitude	-	-	-	0	0	1	-	-	-
	Social acceptance	-	-	-	0	0	1	-	-	-
	Affective Total	0	1	3	-	1	3	-	-	-
Mixed Handicaps	Arithmetic	-	-	-	0	1	1	-	-	-
	Reading	-	-	-	0	1	2	-	-	-
	Spelling	-	-	-	0	0	1	-	-	-
	Cognitive Total	-	-	-	0	2	4	-	-	-

General conclusions are:

1) The two studies which compared resource and regular classes yielded mixed results; one favored the resource room (on behavior) and the other showed no differences on three other measures.

2) A similar pattern is reported for two comparisons of regular and segregated settings; one favored the segregated room (for behavior again) and the second produced no differences for behavior and in other areas.

3) For LD children there was no instance which showed the regular class superior to some degree of segregation when affective outcomes were considered.

4) The question of the most appropriate placement has not been definitely answered. The limited evidence available suggests that placements per se may not be the crucial variable. Bradfield et al (1973), for example, modified instruction in the regular class and found the results equal to those from a segregated class.

Non-Categorical Pupils (See Table 2)

Cognitive domain objectives Only three reports were found that examined the effect of grouping arrangements on groups comprised of children with differing handicaps. All three compared only the resource room with regular class with respect to academic achievement.

General conclusions are:

1) The predominant finding in reading and spelling achievement is one of no difference. One study demonstrated superiority of the resource room.

2) For arithmetic, one finding favored the resource room over regular class and the other showed no difference.

3) None of the results showed superiority of the regular class. However, the regular class setting may provide equal benefit even though it is not superior to the resource room. The equal benefit finding is more likely if the regular class teacher is provided the necessary professional support and does, in fact, implement individualized remedial programs (Rhodes, 1976). However, more studies and ones employing more rigour are required to provide a definitive answer about the best grouping arrangement for mixed classes.

Affective domain objectives No reports were found for investigations which examined the achievement of affective domain objectives for mixed (non-categorical) classes.

A final conclusion regarding placement of EMH, LD and Mixed groups of moderately handicapped pupils A variety of teaching and learning situations existed in the studies reported. The results are variable with one exception. EMH children generally benefit more academically from placement in regular class than in segregated class. The variable results with respect to type of disability and degree of integration in the other comparisons suggest that decisions about grouping procedures may not be the crucial ones. Decisions concerning the support to teachers and their handicapped pupils, regardless of instructional setting, may be the really important ones.

The study summarized next (Rhodes, 1976) is important in that it held constant the consultative support to teachers and the service to pupils across the two types of groupings compared. It also provides a modicum of external validity to the efficacy findings since one can generalize to an entire region within the province of Alberta. All other studies reviewed were based in the United States and most dealt with very restricted populations.

The Central Alberta Study: A Comparison of Regular Classrooms and Resource Rooms As Settings for Remediation of Academic Skills

This study was conducted in Zone 4 in central Alberta to provide an answer to the question "Which remediation setting, the resource room or regular class, provides the greater academic benefit to pupils?"

The sample of pupils was drawn from a population of mainly moderately handicapped pupils who had been placed on individualized remedial programs during 1973-74. The pupil population consisted of approximately 900 children identified mainly as learning disabled but containing a small number who were educable mentally handicapped. Every second name was selected of those on the program lists for each of resource room and regular class. In this fashion 210 from resource rooms and 210 from regular classes were chosen.

Comparisons were made between the adjusted[4] average remediation rates for the groups in regular and resource room classes. This was done for each of the areas represented by the subtests on the Peabody Individual Achievement Test (PIAT) and for the total test.

The results and analysis reported in Table 3 indicate that none of the comparisons of remediation rates between resource and regular groups yielded statistically significant differences. This finding held across all subtest areas - mathemetics, reading recognition, reading comprehension, spelling, general information - as well as the adjusted remediation rate based on PIAT total scores. A student was considered to have benefited from remediation if his remediation rate was higher than the baseline rate. A separate analysis compared the proportion of students benefiting in resource rooms with the proportion in regular classes. Table 3 reports these as percentages for each academic area measured by the PIAT. None of the differences between the resource and regular groups are statistically significant. The proportions benefiting in the subtest areas vary from 53 percent to 70 percent. The total test proportions provide summary information. Here 75 percent of the regular class group and 71 percent of those in resource rooms improved their rates of development.

In summary, the answer to the question, "What is the relative efficacy of resource and regular classes as settings for remediation?" is then -there is no difference. The discussion in the article suggested that support from a variety of sources was likely needed to achieve the results reported. Provincially, support was provided by the Learning Disabilities Fund Grant to provide the Learning Assistance Field Service consultants mentioned. These professionals provided service in diagnosis,

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[4] The pretest results indicated that the groups were not comparable initially; the average baseline rates for the regular class groups were higher. Analysis of covariance was used to adjust each remediation rate (Rate #2) with the pretest rate used as the covariate.

Table 3
Average Improvement in Rates of Progress and Proportion of Students Benefiting from First Year of Remediation: Resource Room and Regular Class Organization Compared

Subtest and Organization	Rates of Progress (grades per year) Baseline Rate 1	Remedial Rate 2	Proportion Benefiting* %	Significance of Difference in Adjusted Rate 2
Mathematics				
Regular	0.788	1.94	70	NS
Resource	0.712	1.39	63	
Reading Recognition				
Regular	0.765	1.10	63	NS
Resource	0.692	1.06	55	
Reading Comprehension				
Regular	0.733	1.50	59	NS
Resource	0.705	1.20	53	
Spelling				
Regular	0.795	1.09	60	NS
Resource	0.700	0.81	54	
General Information				
Regular	0.903	1.78	60	NS
Resource	0.768	1.65	60	
Total				
Regular	0.783	1.41	75	NS
Resource	0.668	1.31	71	
Combined Groups N=(420)	0.726	1.37		

*A difference >8.7% was needed for significance at p<.05

program planning and follow-up consultation in equal fashion between resource and regular teachers and their pupils. Locally, the school system and the school provided assistance. On a personal basis both groups of teachers were likely equally committed and accepting of support. The teachers in regular class had referred pupils for assistance, and implemented the individualized programs provided in consultation with the Learning Assistance Field Services consultants.

PART 111

ON-SITE INTERVIEWS OF SPECIAL EDUCATION TEACHERS AND THEIR ADMINISTRATORS: SUPPORT SERVICES TO REGULAR CLASS TEACHERS

: THE RESPONDENTS

: THE QUESTIONS AND RESPONSES ABOUT THE SPECIAL CLASS TEACHERS' ROLE AS A RESOURCE TO OTHER TEACHERS

: LITERATURE REVIEW

In varying degrees, Special Class teachers provide consultative assistance to other teachers. Relative to this consultative role for each of a number of areas of disability (service areas)--

How willing is the special class teacher to provide service?

How willing is the regular class teacher to receive service?

How frequent is the service?

How adequate is the service?

RESPONDENTS

The Teacher Group

During June 1976, special education consultants from Alberta Education interviewed, on site, special education teachers. A random sample consisting of every fifth teacher listed from the Type B category (teachers of the moderately handicapped) was selected. One hundred and thirty-eight (95.8%) of those selected were interviewed. Reasons for exclusion included improper classification and illness at the time of interview.

As illustrated in Table 4, 64.5% of the teachers had taught for over five years (40.6% for over 10 years) and 55.1% had over two years experience in special education.

Table 4

The Teacher Group: Teaching Experience

Experience	Total Years Teaching Experience	Years Experience in Special Education
Less than 1 year	6 (4.4%)	32 (23.2%)
1 - 2 years	9 (6.5%)	30 (21.7%)
2 - 5 years	34 (24.6%)	47 (32.1%)
5 - 10 years	33 (23.9%)	25 (18.1%)
More than 10 years	56 (40.6%)	4 (2.9%)

Over sixty-eight percent had completed three or more courses in special education. Only 15.9% had not received any formal training in special education (Table 5).

Table 5

The Teacher Group: Number of Courses in Special Education

Courses	Frequency
More than five	53 (38.4%)
four or five	26 (18.8%)
three	15 (10.9%)
two	13 (9.4%)
one	9 (6.5%)
none	22 (15.9%)

The Administrator Group

The selection of the administrator group was based on the random selection of teachers. For each teacher in the sample group, an administrator in the same school was selected. In addition, the superintendent, or his designee (often the director or supervisor of guidance/special education) from central office was surveyed. One hundred and nineteen (96.0%) of the school administrators and 63 (92.6%) of the administrators selected from central office were interviewed.

One hundred forty-one (77.5%) of the administrators were from small urban and rural districts and forty-one (22.5%) from large urban areas.

SPECIAL CLASS TEACHERS' ROLE AS A RESOURCE TO OTHER TEACHERS

Willingness, Frequency and Adequacy of Service

In varying degrees, special class teachers provide consultative assistance to other teachers. Relative to this consultative role, teachers were asked to rate on five-point scales their perceptions of:

1. the special teachers' willingness to provide assistance to other teachers in diagnosing problems and planning programs;
2. other teachers' willingness to receive service;
3. the frequency of actual service ; and
4. the adequacy of actual service.

Ratings were requested for the service areas of behaviour and socio-emotional development, reading, listening, writing, speaking, arithmetic, perception (visual, auditory, tactile) and motor development, follow-up consultation with other teachers, and provision of in-service education for other teachers.

Administrators were asked to rate on five-point scales, their perceptions of special teachers' willingness to provide service, other teachers' willingness to receive service, and the frequency and the adequacy of the actual service.

Both teachers and administrators were asked:

1. Whether, in general, administrators expect special class teachers to provide consultative service to other teachers, and

2. if, in general, the consulting role is facilitated by administrators.

Open-ended comments regarding the special class teacher as a consultant were also solicited from both teachers and administrators.

The general findings were as follows:

1. Special class teachers and their administrators reported an average response as "willing" to provide the service.

2. They viewed regular class teachers as averaging midway between "sometimes willing" and "willing" to receive the service.

3. Both groups perceived the service at present occurring "infrequently" to "sometimes".

4. Administrators' and special class teachers' average rating of the adequacy of this current support service was "sometimes adequate, sometimes inadequate" which was at the midpoint of the five-point scale used.

The open-ended portions of the interviews revealed: total support of this role for special class teachers (not one respondent expressed dissent); and support for the notion that moderately handicapped pupils might be provided assistance in regular class (this was not asked directly of the respondents; however, no dissenters were found to the many questions posed concerning helping regular class teachers improve their remediation efforts).

Table 6 summarizes the significant and nonsignificant differences between groups of special teachers according to various aspects of service to other teachers.

Table 6

Summary Indicating Statistically Significant and Nonsignificant Differences Between Groups ** of Special Teachers: Comparison by Aspects of Service to Other Teachers

	Variables Used to Categorize Special Teachers							
Aspects of Service To Others	Zone	Rural-Urban Project Status	University Preparation	Total Teaching Experience	Spec. Ed. Teaching Experience	Teaching Position	Service Area	Source of Diagnostic Support
Special Teachers' willingness to provide service	NS	NS	NS	*	NS	*	*	NS
Other Teachers' willingness to receive service	NS	NS	NS	*	NS	*	NS	NS
Frequency of Service	NS	NS	NS	NS	*	*	*	*
Adequacy of Service	NS	NS	NS	NS	*	*	NS	NS
Special Teachers' Adequacy in								
:Program Planning	NS	NS	NS	NS	*	NS	■	NS
:Diagnosis	NS	NS	NS	NS	*	NS	■	NS
:Teaching	NS	NS	NS	NS	NS	NS	■	NS

** Groups - Within each major category (e.g. Teaching Position) special teachers are designated into specific groups.

* Differences between two or more groups are statistically significant.

NS Differences between two or more groups are not statistically significant.

■ No comparisons made.

Note: For a detailed explanation of the summary information reported in this table, the reader is referred to the main report.

RECOMMENDATIONS

Organization for Instruction

Questions:

(a) What are the relative merits of resource rooms, segregated special classes and regular classrooms in achieving the objectives of remedial instruction?

(b) What types of students seem best served in each setting?

(c) What are the implications of the findings for Alberta Education relative to leadership, regulations and funding?

Results:

The comparisons analyzed from the studies elsewhere and from the central Alberta study indicated:

(a)
(b) That in the majority of instances there were no significant differences. Regular class teachers, with appropriate orientation and support, were able to meet the needs of the moderately handicapped as well as those teachers instructing in partially segregated or totally segregated settings. More frequently, the results for learning disabled students favored some degree of segregation (e.g. the resource room).

Since the results of the efficacy studies were mixed, and since many of the studies were necessarily lacking in the experimental rigour required for unequivocal conclusions -

Recommendation 1

IT IS RECOMMENDED THAT THE EXISTING TYPE B SPECIAL EDUCATION TEACHER POSITION GRANT REQUIREMENTS BE RETAINED AND THAT THE FUNDS CONTINUE TO BE ACCESSED, AT THE OPTION OF SCHOOL SYSTEMS, FOR USE AS AT PRESENT.

Sufficient evidence exists from the review of the literature and from the central Alberta study which compared resource rooms with regular classrooms to provide the basis for a supplementary recommendation.

Recommendation 11

IT IS RECOMMENDED THAT THE REQUIREMENTS FOR TYPE B SPECIAL EDUCATION TEACHER POSITION GRANTS BE EXPANDED TO PERMIT THE OPTION BY SCHOOL SYSTEMS TO ACCESS THE FUND FOR THE EMPLOYMENT OF SPECIAL CLASS TEACHERS TO FUNCTION A GREATER PORTION OF TIME (PERHAPS FULL-TIME) AS A RESOURCE TO REGULAR TEACHERS. HOWEVER, IT IS FURTHER RECOMMENDED THAT THIS OPTION BE SUBJECT TO THE FOLLOWING CONDITIONS:

i. THAT THE REQUISITE NUMBERS OF MODERATELY HANDICAPPED PUPILS BE IDENTIFIED AND PLACED ON INDIVIDUALIZED PROGRAMS IN REGULAR CLASSES.

ii. THAT THE PRESENT REQUIREMENTS BE RETAINED WITH RESPECT TO THE NUMBER OF PUPILS FOR EACH FULL-TIME EQUIVALENT SPECIAL EDUCATION TEACHER TYPE B POSITION (CONSULTANT-TEACHER POSITION).

iii. THAT THE PUPILS BE SELECTED AND PLACED IN REGULAR CLASS ACCORDING TO EXISTING CRITERIA FOR SPECIAL CLASS INCLUDING INDIVIDUAL EVALUATIONS BY COMPETENT PROFESSIONALS.

iv. THAT THE POSITIONS REFERRED TO IN (ii) BE STAFFED WITH RESOURCE TEACHERS TO SUPPORT THE REGULAR STAFF TEACHERS IN THEIR REMEDIAL INSTRUCTION OF ONLY THOSE PUPILS IDENTIFIED ACCORDING TO (iii).

RECOMMENDATIONS

Support Services to Regular Class Teachers by Special Class Teachers

Questions: In varying degrees, special class teachers provide consultative assistance to other teachers. Relative to this resource role for each of a number of areas of disability:

(a) How willing is the special class teacher to provide service?

(b) How willing is the regular class teacher to receive service (as perceived by special teachers and administrators)?

(c) How frequent is the service?

(d) How adequate is the service?

Results: The findings were based on structured interviews of a random sample of special class teachers and their administrators conducted on-site during June 1976. The general findings were as follows:

(a) Special class teachers and their administrators reported an average response as "willing" to provide the service.

(b) They viewed regular class teachers as averaging midway between "sometimes willing" and "willing" to receive the service.

(c) Both groups perceived the service at present occurring "infrequently" to "sometimes".

(d) Administrators' and special class teachers' average rating of the adequacy of this current support service was "sometimes adequate, sometimes inadequate" which was at the midpoint of the five-point scale used.

The open-ended portions of the interviews revealed: total support of this role for special class teachers (not one respondent expressed dissent); and support for the notion that moderately handicapped pupils might be provided assistance in regular class (this was not asked directly of the respondents; however, no dissenters were found to the many questions posed concerning helping regular class teachers improve their remediation efforts).

Based on these findings from the on-site interviews, and review of related literature, in order to facilitate school systems' implementation of this option-

Recommendations 111, 1V, V and V1

IT IS FURTHER RECOMMENDED THAT ALBERTA SCHOOL SYSTEMS IN CONSULTATION WITH ALBERTA EDUCATION,

111. DEVELOP GUIDLINES, JOB DESCRIPTIONS AND ROLE EXPECTATIONS FOR THIS SUPPORT SERVICE.

1V. PROVIDE ORIENTATION TO TEACHERS AND ADMINISTRATORS.

V. IMPLEMENT THE NECESSARY TEACHER INSERVICE PROGRAMS.

FINALLY, IT IS RECOMMENDED THAT ALBERTA EDUCATION

V1. RECOMMEND TO THE FACULTIES OF EDUCATION IN ALBERTA UNIVERSITIES CONSIDERATION OF PROVIDING PRESERVICE PROGRAMS CONCERNING THIS SUPPORT ROLE FOR SPECIAL EDUCATION TEACHERS.

LITERATURE REVIEW -

: FOLLOW-UP STUDIES
: CHANGING ROLES AND EXPECTATIONS UNDER
AN INTEGRATION MODEL FOR SPECIAL EDUCATION

Follow-up Studies

The review of the literature concerning the long-term effects of remediation was not as extensive as the reviews on the efficacy of special classes and regular class. The constraints on the designs and the data available for follow-up studies are such that less rigour was apparent for most studies in the methodologies used. Accordingly, the conclusions enumerated below must be viewed as tentative.

In The Area Of Reading

1. The prognosis for reading disabled children who have the benefits of high mental ability, culturally advantaged background, early intervention, and who suffer from a mild disability is optimistic in terms of academic, social or occupational achievement. (Rawson, 1968; Robinson and Smith, 1962; and Balow and Blomquist, 1965, who express guarded optimism).

2. The prognosis for children suffering from severe reading disability and coming from lower or lower-middle class backgrounds is poor.

3. Reading disabilities may be ameliorated by short, intensive remediation treatments but continued growth is dependent upon continuing support. (Balow, 1965).

4. Reading disability is generally long-term, chronic and not totally overcome by maturation (Silver and Hagin, 1963, 1964; Forell, 1976). The expectation is not realistic that a large proportion of severely disabled readers "can catch up" with their age-mates when typical short-term remediation arrangements are used.

5. Two related British studies provided conclusions that whatever grouping arrangements are used (special class vs. regular and individual vs. small-group) the results are the same: no significant differences in the long-term effects. In all groups compared the reading quotients declined after remediation ended, (Lovell et al, 1962; 1963).

6. A study based on achievement test results was undertaken by Bienert (1977) in an Alberta setting. An analysis of the follow-up results from a three-year remedial program revealed no differences between the treatment and a comparison group according to the Canadian Test of Basic Skills (CTBS) reading scores. One year after the remedial program ended the differences which had favored the remedial group during remediation were eliminated.

   However, when Bienert analyzed the follow-up scores from a criterion-referenced test which more closely matched the remediation curriculum, he found results favoring the remediation group in one-third of the comparisons: One year after the program ended 1) grade 7 students initially classified as low achievers scored higher than the comparison group and 2) grade 6 students originally categorized as high achievers scored higher than their counterparts. Two-thirds of the comparisons using the curriculum valid measure showed no difference.

Silberberg and Silberberg (1969) in an article entitled "Myths in Remedial Education" reference studies where the average rates at the time of the follow-up evaluations had regressed to the pre-remediation levels. Thus the Silberbergs argued that one of the myths of remedial education--that long-term benefits are normal and to be expected--was not borne out by the evidence from follow-up studies.

In The Areas Of Mental Retardation And Emotional Disturbance

1. Careful selection and preparation of special education students for re-entry to regular classes are necessary to ensure that the effects of remediation carry over (Cormany, 1970; Haring and Krug, 1975). (The study by Haring and Krug was carefully controlled by random assignment of EMH children to the preparation program and to the control group).

2. Emotionally disturbed children do not show the benefits of special class intervention when they are followed up after re-entry in regular classes (Vaac, 1972).

The Vaac investigation involved a comparison of special class and regular class for remediation. None of the differences between the groups were significant on long-term follow-up measures; the early benefits enjoyed by the experimental group had dissipated over time.

Implications Of The Findings From Follow-Up Studies

The poor prognosis relative to the lasting benefits from remedial instruction implies that the regular class teacher may be the crucial factor in improving results. At the very least, the regular teacher who receives graduates from remedial programs requires support in order to maintain the improved rate of development. Students, too, need to be prepared for re-entry. At the most, the regular class teacher might assume front line responsibility for the direct instruction aspect of the remediation task. Here again, substantial and continuous support would be required. Over time a large cadre of regular class teachers with experience and enhanced competencies in remediation could be developed to meet the needs of moderately handicapped pupils.

However, if greater numbers of mildly handicapped pupils are to be considered for retention in regular class groups, further examination of this arrangement is warranted. The next sections of the report examine findings from the literature concerning regular class teachers assuming greater responsibilities for remedial teaching, but with support provided by special class teachers in the same school.

Changing Roles and Expectations Under an Integration Model for Special Education

Growing dissatisfaction with the segregation model for special education has resulted in a trend toward the integration of handicapped students into the regular classroom. This trend has necessitated a reappraisal of the role of the special class teacher.

A review of the literature was optimistic regarding successful implementation of the integration model for handicapped children, and of the consulting teacher role for special education teachers. It was also suggested that:

1. The role of the special education teacher needs to be reevaluated.

2. The consulting role for the special class teacher is feasible.

3. Resource programs benefit from continuing cooperation between the special class and regular class teachers.

4. Training programs for consulting teachers have successfully been tested.

5. Teaching behaviours of regular class teachers, and their attitudes towards handicapped children, can be modified in a positive direction, by formal and inservice training.

6. Administrative support appears to be a crucial factor in both gaining and maintaining staff acceptance of the consulting teacher approach to special education, and the active participation by regular class teachers in implementation of this approach.

7. Finally, it is apparent that special class teachers, regular class teachers, and their administrators would benefit from orientation and inservice relative to the redeployment of special education personnel. In this regard Brickell's (1961) statement has relevance.

> The most successful innovations are those which are accompanied by the most elaborate help to teachers as they begin to provide the new instruction (p.26).

PART 1V

ON-SITE INTERVIEWS OF SPECIAL EDUCATION TEACHERS AND THEIR ADMINISTRATORS;

SUPPORT SERVICES TO SPECIAL CLASS TEACHERS

An exceptional school situation is one in which interaction between a student and his (regular) class teacher has been limited to such an extent, that external intervention is deemed necessary by the teacher to cope with the problem. M. *Stephen Lilly*

Assuming that Special Class teachers also require external support, the following questions are posed:

> *What are the sources, types, frequencies and adequacy of professional support services used by Alberta Special Class Teachers?*
>
> *What "mix" of professional support staff is deemed to be optimal?*
>
> *What instructional materials and equipment have been found by Special Class teachers to be particularly useful/useless?*

SUPPORT SERVICES TO SPECIAL CLASS TEACHERS AS PERCEIVED BY SPECIAL CLASS TEACHERS AND THEIR ADMINISTRATORS[5]

Source, Type, Frequency and Adequacy of Professional Support Services

The perceptions of special class teachers are presented according to the type of resource. Table 7 presents this information for support services from the various sources.

Psychologists

With the exception of psychologists from the school system and LAC or LAFS the mean frequency of use of psychologists (Mental Health Services, contracted, Glenrose or Calgary Children's Hospital) was less than "sometimes." The types of service provided were primarily diagnosis for placement, program planning and follow-up. Perceived adequacy was "useful about half the time."

Eighty-six (62.3%) and 22 (15.9%) of the special class teachers reported using the services of psychologists from the school system, and from LAC or LAFS respectively. Frequency of use averaged "sometimes." The type of service provided was primarily in the areas of diagnosis for placement and follow-up. The perceived adequacy of service was higher than that reported for psychologists from the other sources.

Psychiatrists

Less than 8% of special class teachers reported having used the services of psychiatrists from any source with the reported mean frequency of use as "infrequently." With the exception of psychiatrists from the school systems and Glenrose or Calgary Children's Hospital whose perceived adequacy was greater than "useful about half the time"; services from psychiatrists were perceived as between "sometimes useful" and "useful about half the time."

Social Workers

Support services by social workers is another resource reportedly used by few of the teachers. Social workers employed by other government agencies were reportedly utilized by 24.6% of the respondents and those employed by the school system by 15.9% of the special class teachers. The services provided were primarily in the area of follow-up and were seen as "useful about half the time."

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[5] Significance tests were not performed on the data in this section, since the responding groups partially overlapped making the responses partially dependent and partially independent.

Health Personnel

Health personnel from the Health Units or the City Board of Health were reported used by almost eighty percent (79.7%) of the special class teachers. Frequency of services was "sometimes" with type of service provided being primarily diagnosis for placement and follow-up. Adequacy of service approached "often useful." Public health nurses were rated relatively high on the adequacy scale.

Family physicians and specialists had reportedly provided services to 26.8% and 32.6% (respectively) of the special class teachers. Frequency of service was between "infrequently" and "sometimes" with type of service being primarily diagnosis for placement. The services provided were seen as approaching "useful about half the time," for family physicians and "often useful" for specialists.

Consultants

The largest number of teachers reporting services from consultants, were consultants from Alberta Education (21.7%). Services from Alberta Education consultants were primarily in areas of program planning and follow-up. Adequacy was perceived as "useful about half of the time." Consultants from LAC or LAFS and the Free University Clinic while utilized by less than 15% of the teachers were perceived as "often useful." The low utilization of LAC or LAFS project consultants reflects the fact that their service was limited to two zones.

Speech Therapy/Pathology

Over one-third (35.5%) and 23.9% of special class teachers reported having received support services from speech therapists from the school system and the health units or City Board of Health respectively. Reported frequency of services was "sometimes" with adequacy between "useful about half the time" and "often useful." Services provided were mainly in the areas of diagnosis for placement, program planning and follow-up. The frequency of use of speech therapists from LAC and those contracted was "infrequently" and adequacy was reported as "often useful".

School System Personnel

More special class teachers reported having received support services from school system personnel than from any other single category. Over fifty percent of those responding had received services from Guidance (53.6%), Special Education (55.1%) and school-based administrators (72.4%). Reported frequency of service for all school system personnel was between "sometimes" and "frequently." Service was provided in all categories - diagnosis for placement, program planning, follow-up and inservice. School system personnel provided the vast majority of inservice training. (The only other support personnel providing in-service training appears to be psychologists from the school system or LAC or Lafs and consultants from LAC or LAFS.) Service provided by school system personnel was rated as approaching "often useful."

Table 7

Descriptive Statistics for Type, Frequency and Adequacy of Support Services as Perceived by Special Class Teachers Who Report Actually Receiving Service

Support Services From:	Number Reporting Use	Frequency of Service	Adequacy of Service	Number Reporting These Services: Diagnosis for Placement	Program Planning	Follow-up	In-Service
	N %	$\bar{X}$	$\bar{X}$				
Psychologists							
Mental Health Service	38(27.5%)	2.71	3.07	30	12	20	2
School System	86(62.3)	3.06	3.52	82	39	64	27
Contracted	23(16.7)	2.82	3.21	22	12	8	5
LAC or LAFS	22(15.9)	3.27	4.14	22	17	17	17
Glenrose or Calgary Children's Hospital	31(22.5)	2.19	3.29	26	11	11	2
Psychiatrists							
Mental Health Service	7(5.1%)	2.14	2.71	6	1	2	0
School System	11(7.9)	2.63	3.27	11	4	10	1
Contracted	2(1.4)	3.00	2.50	2	1	0	0
Glenrose or Calgary Children's Hospital	8(5.8)	2.50	3.38	8	3	4	0
Social Workers							
Mental Health Service	17(12.3%)	2.52	2.88	4	2	15	0
Division of Ser. for Handicapped	2(1.5)	3.00	3.00	0	0	2	0
Employed by School System	22(15.9)	3.18	3.50	10	4	17	0
Other Gov't Agencies	34(24.6)	2.64	3.38	8	4	29	0
Health Personnel							
Health Units or City Board of Health	110(79.7%)	3.36	3.88	81	12	70	1
Family Physician	37(26.8)	2.51	2.73	30	6	9	2
Specialists	45(32.6)	2.60	3.71	40	6	18	2

Table 7 (continued)

(Ratings by Teachers Who Report Actual Use of Each Support Service)

Support Services From:	Number Reporting Use	Frequency of Service	Adequacy of Service	Number Reporting These Services: Diagnosis for Placement	Program Planning	Follow-up	In-Service
	N %	$\bar{X}$	$\bar{X}$				
Consultants							
Alberta Education	30(21.7%)	2.50	3.07	4	15	13	9
LAC or LAFS	20(14,5)	3.10	3.95	13	18	13	13
Free University Clinic	18(13.0)	2.55	4.00	11	9	5	3
Speech Therapy/ Pathology							
Health Units or City Board of Health	33(23.9%)	2.91	3.42	25	19	20	5
School System	49(35.5)	3.18	3.55	47	36	36	9
Contracted	2(1.4)	1.50	4.00	1	1	1	0
LAC	3(2.1)	2.33	4.00	2	1	1	2
School System Personnel							
Guidance	74(53.6%)	3.62	3.89	58	39	56	16
Special Education	76(55.1)	3.64	4.09	50	53	56	34
Consultants or Supervisors	68(49.2)	3.26	3.92	37	60	46	35
School-based Administrators	100(72.4)	3.61	3.90	37	51	80	12
Centrally-based Administrators	58(42.0)	3.31	3.79	21	32	34	28

Scales Frequency: 1 - Never, 2 - Infrequently, 3 - Sometimes, 4 - Frequently 5 - Very Frequently

Adequacy: 1 - Seldom or Never Useful, 2 - Sometimes Useful, 3 - Useful about half the time, 4 - Often Useful, 5 - Very Often Useful

Overall Adequacy

Adequacy of specialist support services was perceived in approximately the same pattern regardless of whether the special class teachers were categorized according to position occupied, source of the support for diagnosis, number of special education and related courses, total teaching experience, or special education teaching experience. Rankings in perceived adequacy from highest to lowest were: school system personnel, health workers, psychologists (excluding those from LAC and LAFS), speech therapists, social workers, and psychiatrists.

Administrators were also asked for their perceptions of the type, frequency and adequacy of support services. Table 8 presents this information according to the various sources.

Psychologists

Sixty-one percent and fifty-two percent of the administrators reported use of psychologists from the school system and Mental Health Services respectively. This was followed by 46% for psychologists from Glenrose or Calgary Childrens' Hospital and 25% for psychologists contracted or from LAC or LAFS. Frequency of service was less than "sometimes" for those from Mental Health Service and Childrens' Hospitals and greater than "sometimes" for those from the school system, contracted and LAC or LAFS. Adequacy approached or exceeded "often useful" with perhaps the exception of psychologists from Mental Health Service whose services were viewed as closer to "useful about half of the time." From all sources, types of services reported used were in the following decreasing order - diagnosis for placement, follow-up, program planning and inservice.

Although the percentage reporting utilization was higher for the administrators, the pattern in terms of frequency, adequacy and type paralleled that reported by the teachers.

Psychiatrists

Again the percentages reporting use were higher for administrators (this was the case for all professionals providing support services) with 32% reporting having used psychiatrists from Mental Health Service and 21% from Childrens' Hospitals. Mean frequency of service was again "infrequently" ("sometimes" for psychiatrists from the school system) and adequacy "useful about half of the time." Services received were primarily in the area of diagnosis for placement and follow-up.

Social Workers

Forty-nine percent and 46% reported having received services from social workers from other government agencies and Mental Health Services, respectively; seventeen percent from the Division of Services for the Handicapped and those employed by the school system. As did the teachers, administrators reported having utilized their services "sometimes" and rated them as greater than "useful about half of the time." While the area of greatest service was again perceived to be follow-up, service was also frequently provided in the areas of diagnosis for placement and program planning.

Table 8

Descriptive Statistics for Type, Frequency and Adequacy of Support Services as Perceived by Administrators Who Report Actually Receiving Service

Support Services From:	Number Reporting Use	Frequency of Service	Adequacy of Service	Number Reporting These Services:			
				Diagnosis for Placement	Program Planning	Follow-up	In-Service
	N %	X̄	X̄				
Psychologists							
Mental Health Service	95(52%)	2.75	3.12	75	20	46	4
School System	111(61)	3.88	3.96	93	74	83	64
Contracted	45(25)	3.06	3.86	38	23	24	18
LAC or LAFS	46(25)	3.34	4.11	42	26	31	22
Glenrose or Calgary Children's Hospital	84(46)	2.36	3.67	71	39	43	3
Psychiatrists							
Mental Health Service	58(32%)	2.40	3.12	46	12	30	3
School System	18(10)	3.20	3.28	12	9	9	6
Contracted	12(6.6)	2.57	3.46	8	5	4	2
Glenrose or Calgary Children's Hospital	39(21)	2.17	3.49	33	7	17	2
Social Workers							
Mental Health Service	83(46%)	2.56	3.01	38	16	51	5
Division of Ser. for Handicapped	31(17)	3.03	3.56	13	9	16	4
Employed by School System	31(17)	3.45	3.87	22	18	20	6
Other Gov't Agencies	90(49)	2.37	3.10	29	23	65	6
Health Personnel							
Health Units or City Board of Health	152(84%)	3.39	3.84	100	30	107	14
Family Physician	99(54)	2.60	3.32	70	12	57	2
Specialists	80(44)	2.66	3.56	62	17	45	7

Table 8 (continued)

(Ratings by Administrators Who Report Actual Use of Each Support Service)

Support Services From:	Number Reporting Use	Frequency of Service	Adequacy of Service	Number Reporting These Services: Diagnosis for Placement	Program Planning	Follow-up	In-Service
	N %	$\bar{X}$	$\bar{X}$				
Consultants							
Alberta Education	94(59%)	2.72	3.66	20	49	46	41
LAC or LAFS	32(18)	3.40	3.84	24	27	22	24
Free University Clinic	39(21)	2.41	3.58	35	21	14	5
Speech Therapy/ Pathology							
Health Units or City Board of Health	85(47%)	2.88	3.68	59	54	51	15
School System	65(36)	3.64	4.03	57	49	43	21
Contracted	3(1.6)	1.67	2.33	1	1	0	0
LAC	17(9.3)	2.88	4.21	15	12	12	8
School System Personnel							
Guidance	103(57%)	3.84	4.08	78	72	77	48
Special Education	80(44)	3.68	3.97	65	64	63	48
Consultants or Supervisors	95(52)	3.52	3.96	50	84	62	57
School-based Administrators	154(87)	3.51	3.62	56	109	116	55
Centrally-based Administrators	138(80)	3.19	3.51	60	105	90	72

Scales Frequency: 1 - Never, 2 - Infrequently, 3 - Sometimes, 4 - Frequently
5 - Very Frequently
Adequacy: 1 - Seldom or Never Useful, 2 - Sometimes Useful,
3 - Useful about half the time, 4 - Often Useful,
5 - Very Often Useful

Health Personnel

Health personnel from the Health Units or the City Board of Health were reported used by 84% of all administrators; family physicians and specialists by 54% and 94% respectively. Mean frequency of service was "sometimes" and adequacy was reported as between "useful about half the time" and "often useful." Administrators agreed with teachers in assigning a relatively higher rating to Public health nurses on the adequacy scale. Primary use was in the areas of diagnosis for placement and follow-up.

Consultants

Fifty-nine percent, 21% and 18% reported using the services of consultants from Alberta Education, Free University Clinic and LAC or LAFS respectively. Mean frequency was between "infrequently" and "sometimes" with mean adequacy approaching "often useful."

Speech Therapy/Pathology

Services of speech therapists were reportedly received primarily from health units or the City Board of Health (47%) or the school system (36%). Mean frequency varied from "infrequently" to approaching "frequently", adequacy from "sometimes useful" to "often useful." Again services were primarily in the areas of diagnosis for placement, program planning and follow-up.

School System Personnel

As with special class teachers more administrators reported having received support services from school system personnel than from any single other category. Reported frequency of use and adequacy ratings paralleled those of the teachers as did pattern of service.

Overall Adequacy

The ratings of administrators were comparable to those of special class teachers. Rankings in perceived adequacy from highest to lowest were: school system personnel, health workers, psychologists, speech therapists, social workers, and psychiatrists.

The Selection Of Appropriate Professional Support Staff

The question of appropriate utilization of professional support staff follows from the previous section on utilization and adequacy of those services. Although definitive information was not obtained, some careful extrapolations may be made.

Both special class teachers and administrators have similarly judged the adequacy of the professional support staff. Regardless of how these ratings are categorized as to origin of the specialist the results consistently showed a perceived superiority of educators from the school system and the LAC or LAFS projects. It should also be noted that,overall, the frequency of contact was also greater with school system personnel. (Service by LAC or LAFS professionals was restricted to two zones and this limited overall frequency of use). Two interpretations of this finding appear to be in order.

1. Professionals from the school system and LAC or LAFS are likely to be more attuned to the functional capabilities and limitations within the school jurisdictions. This would enable a better account to be taken of the local capabilities for dealing with the handicapped student in the school setting. It is reasonable to expect that as the support specialist becomes more familiar with the situationally relevant factors to the provision of services on the local school scene, better consultative assistance may be made. Specialists with some limited contact and involvement may be expected to provide less adequate services as perceived by the special class teacher and their administrators. This appears to be reflected in the mean ratings of psychiatrists who might be expected to be less attuned to the school (on an overall basis). Additional support for this conjecture is in the findings that within the different specialist groups, those originating from within the education discipline and service received higher ratings than those who did not. For example, Tables 7 and 8 in the preceding section show higher ratings for psychologists from the school system or LAC/LAFS, and social workers from the school system.

2. Related to the first point is a communication factor. As with other specialist groups, educators have their own specialized vocabulary. Specialists originating outside the education discipline may experience a lesser ability to communicate compared to those originating within the discipline. In reviewing the tables in the last section, there is a tendency for distance from the immediate education discipline to be related to perceived adequacy of the service.

3. The data from this portion of the interviews may support the recommendation that the Special Education Teacher Position grant regulation be modified to permit the use of special education teachers more of the time as support personnel to regular class teachers. Special education teachers are from the education profession, are part of the school system and would function in close proximity to those requiring assistance. Some or all of these conditions were associated with the higher ratings on frequency and adequacy assigned by those interviewed.

The limited information in this study leaves many questions unanswered regarding the selection of appropriate specialist support services. The tendency of special class teachers and administrators to perceive the services of school system specialists more adequate suggests a greater reliance on this type of specialist. This high rating also held for those reporting use of LAC or LAFS educational psychologists and consultants. However, the frequency of use data suggests this already occurs and may indeed be a determining factor rather than a resulting factor in the adequacy ratings. Considering the mean adequacy ratings, the highest mean values were between useful half of the time and often useful with standard deviations of approximately one category. Although this may be partially accounted for by the nature of the scale, room for improvement is evident. More study is needed regarding service quality at all levels.

Materials and Equipment

Special class teachers were asked in the interviews to list instructional materials and equipment they found to be particularly useful/useless. Table 9 lists the materials rated by ten or more special class teachers as useful or very useful.

Table 9

Materials and Equipment Rated Useful or Very Useful

Material/Equipment	No. of Teachers
Cassettes and Tape Recorders	50
Language Master Program	47
Specific Skill Series	46
Schoolhouse SRA	23
Language Patterns	18
Reader's Digest	17
Stott Programmed Reading and Math	15
Flash X	15
Overhead projector	14
Webster Wheels	14
Primary Phonics	14
Listening Centre	13
Individual Reading Program	13
Distar Reading	11
Peabody Language	11
Phonics We Use	11
Palo Alto Reading Series	10

It is interesting to note that with the exception of one, the materials listed are aids for reading and language development.

ORGANIZATION OF CLASSES AND TEACHING PROCEDURES
REPORTED BY SPECIAL EDUCATION TEACHERS

What are the class sizes and the lengths of remediation periods employed by Alberta Special Education teachers?

What are Special Class teachers perceptions of the degree of use, and the efficacy of various teaching agents and procedures?

Class Size and Length of Remediation Period

Table 10 presents the sizes of groups in special classrooms and the average length of the remediation periods according to teaching position.

Table 10

Average Length of Remediation Periods and Group Sizes Reported by Special Class Teachers

		Teaching Position				
		Itinerant Resource Teacher	Resource Room, Half time or Less	Resource Room More than Half Time	Special Segregated Class	Learning Assist. Centre
	N	6	34	73	16	8
Group Size						
smallest		1.7	3.5	2.3	6.5	1.7
largest		5.7	6.5	8.0	10.3	7.3
average		3.7	4.8	5.2	9.6	4.0
Minutes Daily Instruction/ student						
smallest group		88.3	38.5	54.0	47.3	53.9
largest group		106.7	46.8	80.3	52.7	40.4
average group		90.0	44.5	71.5	111.7	55.6

The largest group is the special segregated class and the smallest that of the itinerant resource teacher. The average daily instruction period varies from approximately 3/4 of an hour to two hours, with the largest group (the special segregated class) having the longest average instruction time.

Consultation Contacts With Other Teachers

Table 11 presents the number and length of consultation contacts of special class teachers with other teachers according to teaching position.

Table 11

Number and Length of Consultation Contacts With Other Teachers and Total Contact Minutes Per Week: Averages Reported by Special Class Teachers

	Averages By Type Of Teaching Position				
Consultation Variable	Itinerant Resource Teacher	Resource Room half-time or less	Resource Room more than half time	Special Segregate Class	Learning Assist. Centre
N	6	34	73	16	8
Number of consultation contacts per week	44.2	10.2	13.2	12.5	9.1
Average length of consultation (minutes)	4.0	11.4	10.4	11.7	12.5
Total consultation minutes per week	185.0	108.4	122.5	116.8	51.7
Hours	3.1	1.8	2.0	1.9	0.9

The itinerant resource teachers had the highest average consultation time per week. As might be expected the itinerant resource teacher while averaging the largest number of consultation contacts per week spent considerably less time per contact than the other teaching positions.

The full-time resource room teachers were categorized according to their perceptions of whether or not their administrators generally facilitated their role as assistants to other teachers. Those who responded "generally yes", reported an average of 145.6 minutes per week consulting with peers. Those who felt their administrators were generally not facilitative of this role reported an average of 79.5 minutes per week. The difference between these means is significant at the .01 level.

Administrators' facilitation of the consulting role and time spent in the consulting role by resource room teachers correlated .41 (biserial, 99% confidence intervals .27 to .55). Collectively, the resource room teachers spent an average of nearly two hours per week in consultation with other teachers.

Use and Efficacy of Teaching Agents and Procedures

The special class teachers were asked to estimate the proportion of total teaching time and efficacy (efficiency and productiveness) of various teaching agents and procedures. Table 12 presents the results.

Table 12

Special Class Teachers' Perceptions of Percent Utilization and Efficacy of Pedagogical Practices Employed

Teaching Practice	Percentage of Total Time $\bar{X}$*	Efficacy Rating $\bar{X}$**
Teacher	4.9	4.2
Paid Aide	1.4	2.5
Volunteer Aide (including parents)	1.3	2.1
Student Tutors	1.5	2.6
Independent Study (minimum assistance from others or machines)	2.9	3.4
Teaching Machines	3.0	3.8
Pairs Practice (2+ remedial students share an activity)	3.1	3.7

* Percentage of Total Time: 1 - Not used, 2 - 5%, 3-5 - 10%, 4-11 - 20%, and 5>21%

**Efficacy: 1 - Very Ineffective, 2 - Ineffective, 3 - Somewhat effective, 4 - Effective, 5 - Very Effective

While the teacher was perceived as utilizing the greatest percentage of time and with the greatest efficacy, the paid aide, the volunteer aide and the student tutor were utilized for less than five percent of total teaching time and were perceived as being less than effective. In fact they were perceived as less effective than independent study, pairs practice and the use of teaching machines.

TEACHING AND LEARNING IN THE SPECIAL CLASSROOM

For various kinds of disabilities:

What are the Special Class Teachers' perceptions concerning the proportion of pupils served by the teacher, by others in
- *-diagnosis?*
- *-program planning?*
- *-follow-up of pupil/class progress?*

How adequate are each of diagnosis, program planning, training, and follow-up?

How congruent is the planning with the diagnosis, and teaching with the plan?

Proportion Served, Adequacy, and Congruency of Diagnosis, Planning, Teaching, and Follow-up

The special class teachers were asked for their perceptions of the

1. proportion of students served by themselves and others in diagnosis, program planning and follow-up;

2. adequacy of diagnosis, program planning and follow-up by themselves and others;

3. congruency of program planning with diagnosis by themselves and others; and,

4. adequacy and congruency of their teaching in accordance with the program plan.

These perceptions were requested[6] for each disability area with the exception of follow-up.

Proportion of students diagnosed by the special class teacher was greater than that by others in the reading/spelling, language and arithmetic areas. The proportions for the first two areas fell between 11 and 20 percent of the students and between five and 10 percent for the last area. The proportion diagnosed in the Social/Emotional and Perceptual/Motor Skill areas were between five and 10 percent for both the special class teachers and others. Adequacy of the diagnostic services for all areas, except arithmetic by others, tended toward an adequate rating. The services provided by others in arithmetic diagnosis were rated lower at about "sometimes adequate-sometimes inadequate".

More program planning was done by the special class teacher than others for all disability areas. Reading/spelling and language program planning by special class teachers was highest ranging between 21 and 100%. Arithmetic, Social/Emotional and Perceptual/Motor Skills program planning ranged between 11 and 20 percent by the special class teachers. Program planning provided by others served less than 5 percent of the students. Average perceived adequacy of program planning by the special class teacher tended to be greater (approaching "adequate") than that provided by others (approaching "sometimes adequate, sometimes inadequate"). The special class teacher also found congruency greater with their own planning than when it was provided by others. The special class teachers' own congruency tended to be rated "quite similar" with others' congruency rated about "somewhat similar".

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[6] Statistical significance tests were not performed because the data were partly dependent, partly independent.

Both adequacy and congruency estimates across disability areas were similarly rated between "sometimes adequate, sometimes inadequate" and "adequate" and "sometimes similar" respectively.

Allowing that the five point scale used tends to elicit a "middling" type of response, it is reasonable to conclude that the special class teachers were relatively satisfied with the adequacy of the diagnosis, program planning and follow-up services whether provided by themselves or others. There was a tendency however, for the special class teacher to be slightly more satisfied with their own service. Similarly, congruency between diagnosis and plan were seen as reasonably satisfactory for both the special class teacher and others. No difference was noted in this trend in the special class teachers' estimate of self-adequacy in teaching and their ability to teach in relative congruence with the program plan. Although by average ratings adequacy and congruency appear with relative satisfaction, the standard deviations between about one and 1¼ categories show some variability in the ratings. Room for improvement is evident because of the variability in ratings; some teachers recorded at the lower end of the scales.

Table 13 illustrates the special class teachers' perceptions of adequacy by self and others in diagnosis and program planning and by self in teaching. This information is presented according to disability area.

Table 13

Special Class Teachers' Perceptions of Adequacy* by Self and Others in Diagnosis, Program Planning and Teaching-According to Disability Area

Area		Diagnostic Services $\overline{X}$	Program Planning $\overline{X}$	Teaching $\overline{X}$
Reading/Spelling	Self	3.9	4.0	4.1
	Others	3.8	3.4	-
Language	Self	3.7	3.8	3.8
	Others	3.6	3.2	-
Arithmetic	Self	3.6	3.7	3.4
	Others	3.0	2.9	-
Social/Emotional	Self	3.6	3.5	3.7
	Others	3.7	3.2	-
Perceptual or Motor Skill	Self	3.7	3.6	3.5
	Others	3.7	3.4	-

*Adequacy Scale
Very Inadequate........................1
Inadequate.............................2
Sometimes adequate/inadequate..........3
Adequate...............................4
Very Adequate..........................5

PART V

ADMINISTRATION AND GOVERNANCE

:Size and nature of administrative structures
 for special education
:The Alberta Scene

What factors need to be considered relative to size and nature of administrative structures in providing services to handicapped pupils and their teachers?

SIZE AND NATURE OF ADMINISTRATIVE STRUCTURES FOR SPECIAL EDUCATION

It has been suggested (Fain, 1970) that the efficiency and quality of special education services often depend on the size of the administrative unit. That is, small school systems may find it advantageous to join with other jurisdictions to form an administrative structure large enough to justify a wider range of specialized service. Very large school systems may find decentralization and formation of smaller administrative units provide the optimal size.

To summarize the research findings available on this topic a review of the literature was undertaken. The research reported was all based on evaluations conducted in the United States where regional shared-services arrangements are often called cooperative arrangements or take the form of intermediate school districts. The findings from the review which may have application are enumerated below.

1. Minimum total enrollment in the school systems comprising the regional shared-services unit should be 10,000 (Chalfant, 1967; Hughes et al, 1970).

2. The travel time required should not exceed two hours per day (Chalfant, 1967) or two hours per day for 90 percent of the area to be serviced (Hughes et al, 1970).

3. The above authors also note that existing government structures, as well as social, economic and geographic factors would be considered in establishing boundaries for a regional shared-service unit.

4. Shared-services arrangements have provided continuity and stability for programs. Competent professional staff have been employed. An alternative to shared-services is the purchase of services from a larger school district. However, relinguishing exceptional children to larger school districts has inherent problems; the smaller district has no voice in the administration of services and the needs of children from the larger district are often assigned higher priority (Chalfant, 1967).

5. Shared-services structures have operated quality programs. Support from the state government is required (Achilles et al, 1974).

The Alberta Scene

The findings listed above are congruent with the experience of some school districts in Alberta. Regional shared-services structures have been implemented in north-western Alberta (staffed and administered by the province with guidance from an advisory council), in the central zone (administered by a Regional District board with membership comprised of those school systems receiving services) and in the south-east (service provided by a cooperative arrangement involving school systems and the mental health services division of a provincial government department).

No studies were noted in the literature which compared a government operated service with a regional shared-services one operated by school systems. Accordingly, choices between central and regional responsibility cannot be based on empirical evidence. Instead, the decision would be based on preferences and philosophical criteria. The end result might well be the same; the type and quality of service could be unrelated to whether governance and administration were based with central or regional authorities.

Conclusions

Conclusions based on the limited research findings available concerning regional inter-district shared-services are as follows:

1. Some school jurisdictions, because of limitations of size, cannot easily provide the kind and range of specialized service they would like.

2. Regional shared-services arrangements represent a viable alternative for such school systems.

3. Guidelines provided by Chalfant (1967) and Hughes et al (1970) may be considered in organizing and operating a regional shared-services unit.

4. The formation and continued operation of regional shared-services will depend on the initiative and moral support provided by the province.

ON-SITE INTERVIEWS OF SPECIAL EDUCATION TEACHERS REGARDING TRANSFER OF PUPILS TO AND FROM SPECIAL PROGRAMS

Who decides about placement and removal of pupils from special programs?

How adequate are present arrangements?

Present Arrangements for Transfer of Pupils

Special class teachers were also asked for their perceptions of the relative involvement of teachers, administrators/consultants and parents in the placement and removal of pupils from special programs. Teachers are seen as making the decisions affecting the largest proportion of pupils, next administrators/consultants, and last parents. This pattern prevailed whether ratings were for transfers in or out or whether on the basis of rural, urban and project status; or teaching position.

In addition, they were asked to comment on the adequacy of present arrangements. Of all teachers taken together 47.1% reported arrangements for transfers in adequate with 33.3% very adequate, and 42.8% reported arrangements for transfers out adequate and 35.5% very adequate.

No significant differences were found between adequacy of ratings for transfers in or out when ratings were compared according to teaching position; level of training; rural, urban and project status; or total teaching experience.

The open-ended comments supported the adequacy ratings; and suggested greater involvement of both educators and parents.

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APPENDICES

APPENDIX A

GLOSSARY

GLOSSARY

ITINERANT RESOURCE TEACHER: One who services two or more schools on a travelling basis.

LAC: Learning Assistance Centre - an organization consisting of two educational psychologists, a speech therapist and a reading consultant serving Zone 1 (the Peace River Zone) in north-western Alberta.

LAFS: Learning Assistance Field Service - an organization similar to the LAC but consisting of one school psychologist and three field consultants serving much of Zone 4 (the Central Alberta region) in Alberta.

LEARNING ASSISTANCE CENTRE TEACHER: A teacher in a fixed location in a large urban school system who tutors children sent to the Centre from surrounding schools.

PROJECT STATUS: Refers to respondents in Zone 1 (Served by the LAC) plus that part of Zone 4 served by the LAFS.

RESOURCE TEACHERS (half or full-time): Teachers providing remedial instruction for small groups who are scheduled for the resource room for a portion of the school day (typically 40 to 60 minutes daily).

RURAL STATUS: All school jurisdictions except the four large ones in Calgary and Edmonton.

URBAN STATUS: The four large urban school districts in Calgary and Edmonton; Calgary and Edmonton Public and RCS.

Zone:	1	Peace River
	2	North Central (Edmonton non-urban)
	3	North Central (Edmonton non-urban)
	4	Central
	5	South Central (Calgary non-urban)
	6	Southern (Lethbridge Zone)
	7	Edmonton Public
	8	Edmonton RCS
	9	Calgary RCS
	10	Calgary Public

APPENDIX B

SURVEY FORM OF NUMBERS OF HANDICAPPED CHILDREN OF SCHOOL AGE

SURVEY OF NUMBERS OF HANDICAPPED CHILDREN OF SCHOOL AGE
1) RECEIVING REMEDIATION IN REGULAR CLASSROOMS OR
2) EXCLUDED FROM SCHOOL

How many pupils are receiving remedial instruction where assistance is provided by the Learning Disabilities Fund (LDF) and the Special Education Teacher Position (SETP) grant? Alberta Education has information regarding the numbers in various types of Special Classes supported by the SETP grant. However, we do not have information concerning the number receiving special remedial help in Regular classrooms and the number of handicapped pupils who are not in school.

Please estimate the number of pupils in your school system who have been provided an individualized remedial program during 1975-76. Please include in your estimate only those pupils for whom the following criteria apply:

1. Diagnosis and/or program planning consultation were provided by personnel at least partly funded by LDF. (e.g. locally employed, contracted, LAC personnel in Zone 1, LAFS in Zone 4).
2. The responsibility for remedial instruction rested with the Regular classroom teacher or the EOF project teacher.

Instructional Arrangement	Number of Pupils
Resource Room	N/A (no estimate required)
Special Class (e.g.Opportunity Room)	N/A (no estimate required)
Other SETP grant arrangements	N/A (no estimate required)
Regular Classroom	*
E.O.F. project remedial classroom	*
Total	______________

* The estimate includes only those pupils for whom diagnosis and/or program planning were provided by personnel at least partly funded by LDF.

In addition, please estimate the number of handicapped children of school age who did not attend any school or remedial setting during 1975-76. The number is ______________.

Thank you for providing the information requested.

Please return to:
Planning and Research Branch
Alberta Education
10th Floor, Executive Building
Edmonton, Alberta

Date ______________________________ Signed ______________________________

Dist. County No. ____________ Div. Position ______________________________

APPENDIX C

MASTER CORRELATION MATRIX FOR THE ALBERTA REPLICATION OF THE 1972-73 RAWLYK STUDY

Table 14

Master Correlation Matrix for the Alberta Replication of the 1972-73 Rawlyk Study*

Variables	1	2	3	4	5	6	7	8	9	10
1	1.000	-0.009	0.556	0.252	-0.065	0.074	0.935	0.545	0.305	0.273
2	-0.009	1.000	0.072	0.020	0.583	-0.588	0.038	-0.065	-0.099	-0.049
3	0.556	0.072	1.000	0.543	0.013	0.002	0.441	0.312	0.201	0.182
4	0.252	0.020	0.543	1.000	-0.011	0.016	0.167	0.053	0.077	0.095
5	-0.065	0.583	0.013	-0.011	1.000	-0.964	-0.075	-0.107	-0.248	-0.104
6	0.074	-0.588	0.002	0.016	-0.964	1.000	0.083	0.117	0.234	0.099
7	0.935	0.038	0.441	0.167	-0.075	0.083	1.000	0.554	0.300	0.261
8	0.545	-0.065	0.312	0.053	-0.107	0.117	0.554	1.000	0.175	0.130
9	0.305	-0.099	0.201	0.077	-0.248	0.234	0.300	0.175	1.000	0.409
10	0.273	-0.049	0.182	0.095	-0.104	0.099	0.261	0.130	0.409	1.000
11	0.291	0.016	0.294	0.097	-0.069	0.100	0.289	0.271	0.161	0.300
12	0.321	0.098	0.321	0.090	-0.020	0.029	0.326	0.368	0.192	0.130
13	0.246	0.029	0.242	0.071	0.097	-0.100	0.255	0.214	0.044	0.068
14	-0.054	0.061	0.022	0.023	-0.135	0.191	0.013	0.014	0.027	-0.068
15	-0.076	-0.117	-0.023	-0.053	-0.102	0.118	-0.090	0.029	-0.010	-0.135
16	-0.063	0.194	-0.027	-0.015	0.310	-0.326	-0.059	-0.098	-0.133	-0.084
17	-0.400	-0.003	-0.421	-0.129	0.112	-0.126	-0.405	-0.272	-0.204	-0.234
19	-0.226	0.192	-0.251	-0.121	0.383	-0.410	-0.230	-0.222	-0.254	-0.103
20	-0.204	0.403	-0.213	-0.107	0.420	-0.453	-0.203	-0.290	-0.041	-0.027
21	0.009	0.161	0.012	0.053	0.087	-0.114	0.004	-0.130	0.053	0.074
22	0.084	-0.102	0.116	0.050	0.068	0.028	0.016	-0.046	-0.059	-0.024
23	-0.107	0.306	-0.145	-0.046	0.433	-0.440	-0.100	-0.075	-0.310	-0.120
24	-0.051	-0.091	0.013	0.072	-0.053	0.047	-0.075	0.034	-0.168	0.070
25	-0.048	0.005	-0.062	-0.029	-0.022	0.096	-0.037	-0.011	-0.016	0.009
26	-0.073	-0.094	-0.008	-0.087	-0.051	0.058	-0.068	0.014	0.037	-0.126
27	-0.052	-0.030	0.048	0.001	-0.096	0.054	-0.055	-0.136	0.327	0.059
28	-0.079	-0.105	-0.112	-0.066	-0.133	0.167	-0.070	-0.062	0.077	-0.020
29	0.761	-0.018	0.307	-0.020	-0.024	0.026	0.577	0.364	0.189	0.166
30	0.362	-0.023	0.553	0.712	-0.007	0.010	0.238	0.139	0.124	0.108
31	0.173	-0.023	0.237	-0.020	-0.037	0.040	0.167	0.063	0.040	0.070
32	0.228	-0.003	-0.018	-0.040	-0.035	0.041	0.350	0.130	0.186	0.093
33	-0.876	0.017	-0.606	-0.330	0.060	-0.065	-0.866	-0.468	-0.262	-0.237
34	0.876	-0.017	0.606	0.330	-0.060	0.065	0.866	0.468	0.262	0.237
35	0.110	0.122	0.071	0.022	-0.166	0.190	0.131	0.043	0.525	0.148
36	-0.110	-0.122	-0.071	-0.022	0.166	-0.190	-0.131	-0.043	-0.525	-0.148
37	-0.325	-0.222	-0.385	-0.228	0.037	-0.051	-0.339	-0.220	-0.143	-0.215
38	-0.018	0.197	0.092	0.106	-0.001	0.012	-0.012	0.040	0.027	0.125
39	0.646	0.068	0.563	0.241	-0.067	0.075	0.661	0.345	0.220	0.124

* a correlation of .195 or greater is required for significance at $\alpha = .05$

Table 14 cont'd.

Variables	11	12	13	14	15	16	17	19	20
1	0.291	0.321	0.246	-0.054	-0.078	-0.063	-0.400	-0.226	-0.204
2	0.046	0.098	0.028	0.061	-0.117	0.194	-0.003	0.192	0.403
3	0.284	0.321	0.242	0.022	-0.023	-0.027	-0.421	-0.251	-0.213
4	0.097	0.090	0.071	0.023	-0.053	-0.015	-0.129	-0.121	-0.107
5	-0.069	-0.020	0.097	-0.135	-0.102	0.310	0.112	0.383	0.420
6	0.100	0.029	-0.100	0.191	0.118	-0.326	-0.126	-0.410	-0.453
7	0.289	0.325	0.255	0.013	-0.090	-0.059	-0.405	-0.230	-0.203
8	0.271	0.358	0.214	0.014	0.029	-0.098	-0.272	-0.222	-0.290
9	0.161	0.192	0.044	0.027	-0.010	-0.133	-0.204	-0.254	-0.041
10	0.300	0.130	0.068	-0.068	-0.135	-0.084	-0.234	-0.103	-0.027
11	1.000	0.519	0.145	0.161	-0.103	-0.122	-0.361	-0.253	-0.129
12	0.519	1.000	0.493	0.184	-0.236	0.038	-0.316	-0.276	-0.124
13	0.145	0.493	1.000	-0.026	-0.218	0.082	-0.204	-0.059	-0.037
14	0.161	0.184	-0.026	1.000	0.131	0.025	0.046	-0.229	-0.118
15	-0.103	-0.236	-0.218	0.131	1.000	0.063	0.091	-0.236	-0.079
16	-0.122	0.033	0.082	0.025	0.063	1.000	0.036	0.031	0.135
17	-0.361	-0.316	-0.204	0.046	0.091	0.036	1.000	0.304	0.247
19	-0.253	-0.276	-0.059	-0.229	-0.236	0.031	0.304	1.000	0.535
20	-0.129	-0.124	-0.037	-0.118	-0.079	0.135	0.247	0.535	1.000
21	0.053	0.166	0.118	-0.070	-0.060	-0.035	-0.082	0.149	0.147
22	0.098	-0.026	0.003	-0.131	0.054	-0.105	-0.146	-0.084	-0.005
23	-0.184	-0.190	-0.049	-0.171	-0.305	0.086	0.186	0.800	0.099
24	0.090	0.100	0.010	-0.050	-0.150	0.070	-0.051	-0.081	0.131
25	0.053	0.052	0.110	0.062	-0.008	-0.104	-0.124	-0.167	-0.000
26	-0.094	-0.286	-0.195	0.034	0.797	-0.014	0.111	-0.053	0.042
27	-0.040	0.117	0.151	-0.077	-0.246	-0.062	-0.068	-0.117	0.005
28	0.040	0.079	-0.121	0.204	-0.038	0.025	0.095	-0.309	-0.183
29	0.135	0.179	0.145	-0.071	-0.028	-0.033	-0.172	-0.103	-0.097
30	0.130	0.109	0.067	-0.011	-0.028	0.017	-0.172	-0.103	-0.097
31	0.125	0.156	0.164	-0.036	-0.080	-0.028	-0.172	-0.103	-0.097
32	0.099	0.104	0.097	-0.030	-0.162	-0.066	-0.129	-0.127	-0.104
33	-0.257	-0.292	-0.254	0.035	0.109	0.038	0.348	0.209	0.197
34	0.257	0.292	0.254	-0.035	-0.109	-0.038	-0.348	-0.209	-0.197
35	0.110	0.147	-0.077	0.096	0.083	-0.190	-0.277	-0.163	0.002
36	-0.110	-0.147	0.077	-0.096	-0.083	0.190	0.277	0.163	-0.002
37	-0.311	-0.355	-0.134	-0.131	-0.061	0.088	0.416	0.231	0.146
38	0.171	0.190	-0.043	0.158	0.130	-0.076	-0.141	-0.090	-0.020
39	0.283	0.331	0.329	-0.034	-0.115	-0.031	-0.533	-0.275	-0.240

Table 14 cont'd.

Variables	21	22	23	24	25	26	27	28	29	30
1	0.009	0.084	-0.107	-0.051	-0.048	-0.073	-0.052	-0.079	0.761	0.362
2	0.161	-0.102	0.306	-0.091	0.005	-0.084	-0.030	-0.105	-0.018	-0.023
3	0.012	0.116	-0.145	0.013	-0.062	-0.008	0.048	-0.112	0.307	0.653
4	0.053	0.050	-0.046	0.072	-0.029	-0.087	0.001	-0.066	-0.020	0.712
5	0.087	0.068	0.433	-0.053	-0.082	-0.061	-0.096	-0.133	-0.024	-0.007
6	-0.114	0.028	-0.440	0.047	0.096	0.058	0.054	0.167	0.026	0.010
7	0.004	0.016	-0.100	-0.075	-0.037	-0.068	-0.055	-0.070	0.577	0.238
8	-0.130	-0.046	-0.075	0.034	-0.011	0.014	-0.136	-0.062	0.364	0.139
9	0.053	-0.059	-0.310	-0.168	-0.016	0.037	0.327	0.077	0.189	0.124
10	0.074	-0.024	-0.120	0.070	0.009	-0.126	0.089	-0.020	0.166	0.108
11	0.053	0.098	-0.184	0.090	0.058	-0.094	-0.040	0.040	0.135	0.130
12	0.166	-0.026	-0.190	0.100	0.052	-0.286	0.117	0.079	0.179	0.109
13	0.118	0.003	-0.049	0.010	0.110	-0.195	0.151	-0.121	0.145	0.067
14	-0.070	-0.131	-0.171	-0.050	0.062	0.034	-0.077	0.204	-0.071	-0.011
15	-0.060	0.054	-0.305	-0.150	-0.008	0.797	-0.246	-0.038	-0.028	-0.028
16	-0.035	-0.105	0.086	0.070	-0.104	-0.014	-0.062	0.025	-0.033	0.017
17	-0.082	-0.146	0.186	-0.051	-0.124	0.111	-0.068	0.095	-0.172	-0.172
19	0.149	-0.084	0.800	-0.081	-0.167	-0.053	-0.117	-0.309	-0.103	-0.103
20	0.147	-0.005	0.099	0.131	-0.000	0.042	0.005	-0.183	-0.097	-0.097
21	1.000	0.021	0.098	0.018	-0.080	-0.073	-0.103	0.115	0.005	0.005
22	0.021	1.000	-0.195	0.213	0.109	0.011	-0.105	-0.059	0.035	0.056
23	0.098	-0.195	1.000	-0.219	-0.207	-0.196	-0.160	-0.219	-0.040	-0.040
24	0.018	0.213	-0.219	1.000	-0.213	-0.201	-0.164	-0.224	-0.042	-0.042
25	-0.080	0.109	-0.207	-0.213	1.000	-0.191	-0.155	-0.213	-0.039	-0.039
26	-0.073	0.011	-0.196	-0.201	-0.191	1.000	-0.147	-0.201	-0.037	-0.037
27	-0.103	-0.105	-0.160	-0.164	-0.155	-0.147	1.000	-0.164	-0.030	-0.030
28	0.115	-0.059	-0.219	-0.224	-0.213	-0.201	-0.164	1.000	-0.042	-0.042
29	0.005	0.035	-0.040	-0.042	-0.039	-0.037	-0.030	-0.042	1.000	-0.008
30	0.005	0.056	-0.040	-0.042	-0.039	-0.037	-0.030	-0.042	-0.008	1.000
31	-0.01	-0.019	-0.040	-0.042	-0.039	-0.037	-0.030	-0.042	-0.008	-0.008
32	-0.103	0.036	-0.082	-0.084	-0.080	-0.075	0.369	-0.084	-0.016	-0.016
33	0.007	-0.016	0.082	0.084	0.080	0.075	0.061	0.084	-0.494	-0.494
34	-0.007	0.016	-0.082	-0.084	-0.080	-0.075	-0.061	-0.084	0.494	0.494
35	0.142	0.001	-0.182	-0.083	0.052	0.065	0.114	0.081	0.068	-0.113
36	-0.142	-0.001	0.182	0.082	-0.052	-0.065	-0.114	-0.081	-0.068	0.113
37	-0.092	-0.056	0.087	-0.065	-0.012	0.001	0.047	0.059	-0.119	-0.119
38	0.130	-0.028	-0.022	0.141	-0.055	0.064	-0.052	-0.034	-0.055	-0.055
39	-0.057	0.156	-0.125	-0.129	0.120	-0.115	0.004	-0.051	0.323	0.323

Table14 cont'd

Variables	31	32	33	34	35	36	37	38	39
1	0.138	0.228	-0.876	0.876	0.110	-0.110	-0.325	-0.018	0.646
2	-0.023	-0.003	0.017	-0.017	0.122	-0.122	-0.222	0.197	0.068
3	0.237	-0.018	-0.606	0.606	0.071	-0.071	-0.385	0.092	0.563
4	-0.020	-0.040	-0.330	0.330	0.022	-0.022	-0.228	0.106	0.241
5	-0.037	-0.035	0.060	-0.060	-0.166	0.166	0.037	-0.001	-0.067
6	0.040	0.041	-0.065	0.065	0.190	-0.190	-0.051	0.012	0.075
7	0.167	0.350	-0.666	0.666	0.131	-0.131	-0.339	-0.012	0.661
8	0.063	0.130	-0.468	0.468	0.043	-0.043	-0.220	0.040	0.345
9	0.040	0.186	-0.262	0.262	0.525	-0.525	-0.143	0.027	0.220
10	0.070	0.093	-0.237	0.237	0.148	-0.148	-0.215	0.125	0.184
11	0.125	0.099	-0.257	0.257	0.110	-0.110	-0.311	0.171	0.283
12	0.156	0.104	-0.292	0.292	0.147	-0.147	-0.355	0.190	0.331
13	0.164	0.097	-0.254	0.254	-0.077	0.077	-0.134	-0.043	0.329
14	-0.036	-0.030	0.035	-0.035	0.096	-0.096	-0.131	0.158	-0.034
15	-0.080	-0.162	0.109	-0.109	0.083	-0.083	-0.061	0.130	-0.115
16	-0.028	-0.066	0.038	-0.038	-0.190	0.190	0.088	-0.076	-0.031
17	-0.172	-0.129	0.348	-0.348	-0.277	0.277	0.416	-0.141	-0.533
19	-0.103	-0.127	0.209	-0.209	-0.163	0.163	0.231	-0.090	-0.275
20	-0.097	-0.104	0.197	-0.197	0.002	-0.002	0.146	-0.020	-0.240
21	-0.011	-0.103	0.007	-0.007	0.142	-0.142	-0.092	0.130	-0.057
22	-0.019	0.036	-0.016	0.016	0.001	-0.001	-0.056	-0.028	0.156
23	-0.040	-0.082	0.082	-0.082	-0.182	0.182	0.087	-0.022	-0.125
24	-0.042	-0.084	0.084	-0.084	-0.083	0.082	-0.065	0.141	-0.129
25	-0.039	-0.080	0.080	-0.080	0.052	-0.052	-0.012	-0.055	0.120
26	-0.037	-0.075	0.075	-0.075	0.065	-0.065	0.001	0.064	-0.115
27	-0.030	0.369	0.061	-0.061	0.114	-0.114	0.047	-0.052	0.004
28	-0.042	-0.084	0.084	-0.084	0.081	-0.081	0.059	-0.034	-0.051
29	-0.008	-0.016	-0.494	0.494	0.068	-0.068	-0.119	-0.055	0.323
30	-0.008	-0.016	-0.494	0.494	-0.113	0.113	-0.119	-0.055	0.323
31	1.000	-0.016	-0.494	0.494	-0.113	0.113	-0.119	-0.055	0.323
32	-0.016	1.000	-0.226	0.226	0.137	-0.137	-0.055	-0.013	0.127
33	-0.494	-0.226	1.000	-1.000	0.046	-0.046	0.241	0.111	-0.653
34	0.494	0.226	-1.000	1.000	-0.046	0.046	-0.241	-0.111	0.653
35	-0.113	0.137	0.046	-0.046	1.000	-1.000	-0.403	0.380	0.085
36	0.113	-0.137	-0.046	0.046	-1.000	1.000	0.403	-0.380	-0.085
37	-0.119	-0.055	0.241	-0.241	-0.403	0.403	1.000	-0.853	-0.369
38	-0.055	-0.013	0.111	-0.111	0.380	-0.380	-0.853	1.000	-0.170
39	0.323	0.127	-0.653	0.653	0.085	-0.085	-0.369	-0.170	1.000

APPENDIX D

THE INTERVIEW FORMS USED FOR THE ON-SITE SURVEYS OF SPECIAL EDUCATION TEACHERS AND THEIR ADMINISTRATORS

SURVEY OF SPECIAL EDUCATION SERVICES: INTERVIEW SCHEDULE

The purpose of this interview instrument is to gather information in a systematic manner from a representative sample of special education teachers and administrators. The information gathered will assist in planning in the area of special education. The format and rating scales used will facilitate summarizing the information. However, the respondent should feel free to add additional comments.

Please respond anonymously. Individual respondents will not be identified. Confidentiality will be maintained.

The following procedure will be followed:

1. Both the interviewer and the interviewee will have one copy of the survey form and will follow this form during the interview.

2. The interviewer will record, for each item on the survey, the rating/comments of the teacher or administrator.

3. The interviewer will forward the completed survey form to the Planning and Research Branch, Department of Education.

4. Administrators and central office personnel will respond only to items 3-143.

SORTING INFORMATION

1. For office use only:		(1)
		(2)
* 2. Position	a) Itinerant Resource Teacher (three or more Schools)	(3)
	b) Resource Room Teacher, half time or less	(4)
	c) Resource Room Teacher, more than half time	(5)
	d) Special (segregated) Class Teacher	(6)
	e) Learning Assistance Centre Teacher	(7)
	f) School-based Administrator	(8)
	g) Central Office-based Administrator/Supervisor	(9)
* 3. Source of Support Services: DIAGNOSIS (at least partly funded by LDF)	a) Almost entirely provided by school system	(10)
	b) Almost entirely provided by purchase or contract of service	(11)
	c) Shared by school system and contract personnel	(12)
	d) LAC or LAFS personnel	(13)
	e) Shared by school system and LAC or LAFS	(14)
	f) Little or no support	(15)
* 4. Source of Support Services: PROGRAM PLANNING (at least partly funded by LDF)	a) Almost entirely provided by school system	(16)
	b) Almost entirely provided by purchase or contract of service	(17)
	c) Shared by school system and contract personnel	(18)
	d) LAC or LAFS personnel	(19)
	e) Shared by school system and LAC or LAFS	(20)
	f) Little or no support	(21)
* 5. Source of Support Services: FOLLOW-UP CONSULTATION AND PUPIL EVALUATIONS (at least partly funded by LDF)		

*Administrators are asked to complete all those items marked with an asterisk.

a) Almost entirely provided by school system (22)
b) Almost entirely provided by purchase or contract of service (23)
c) Shared by school system and contract personnel (24)
d) LAFS or LAC project personnel (25)
e) Shared by school system and LAFS or LAC (26)
f) Little or no support (27)

*6. Source of Support Services:
INSERVICE

a) Almost entirely provided by school system (28)
b) Almost entirely provided by purchase or contract of service (29)
c) Shared by school system and contract personnel (30)
d) LAFS or LAC project personnel (31)
e) Shared by school system and LAFS or LAC (32)
f) Little or no support (33)

7. Teacher Training:
Number of Full Courses in Special Education and Related Subjects

a) More than five (34)
b) Four or five (35)
c) Three, but less than four (36)
d) Two, but less than three (37)
e) One, but less than two (38)
f) None (39)

8. Total Teaching Experience

a) More than 10 years (40)
b) Five, but less than ten (41)
c) Two, but less than five (42)
d) One, but less than two (43)
e) Less than one (44)

9. Teacher Experience in Special Education

a) More than 10 years (45)
b) Five, but less than ten (46)
c) Two, but less than five (47)
d) One, but less than two (48)
e) Less than one (49)

10. Student Characteristics

a) Number of home rooms from which children are drawn ___(50)
b) The number of grades/years in school represented in the class ___(51)
c) The range in reading achievement in the class (grade equivalents from ___ to ___) ___(52)
d) Number of students who are from other school systems ___(53)
e) Does the school or system have policies or routine procedures concerning placement of students in Special Class?
Yes (54)
No (55)

SUPPORT SERVICES USED BY SPECIAL CLASS AND REGULAR CLASS TEACHERS

Please indicate the kind, amount and the perceived adequacy of the service provided by the personnel indicated. Use the following scales:

KIND OF SERVICE	FREQUENCY OF SERVICE	ADEQUACY OF SERVICE
1. None	1. Never	1. Seldom or Never Useful
2. Diagnosis, for placement purposes	2. Infrequently	2. Sometimes Useful
3. Program Planning	3. Sometimes	3. Useful about half the time
4. Follow-up Consultation	4. Frequently	4. Often Useful
5. Inservice	5. Very Frequently	5. Very Often Useful

*11. PSYCHOLOGISTS from Mental health Services (Guidance Clinics)	Kind	1	2	3	4	5	(56)
	Frequency	1	2	3	4	5	(57)
	Adequacy	1	2	3	4	5	(58)
School System	Kind	1	2	3	4	5	(59)
	Frequency	1	2	3	4	5	(60)
	Adequacy	1	2	3	4	5	(61)
Contracted	Kind	1	2	3	4	5	(62)
	Frequency	1	2	3	4	5	(63)
	Adequqcy	1	2	3	4	5	(64)
LAC or LAFS Project (Educational or School Psychologists)	Kind	1	2	3	4	5	(65)
	Frequency	1	2	3	4	5	(66)
	Adequacy	1	2	3	4	5	(67)
Glenrose or Calgary Childrens Hospital	Kind	1	2	3	4	5	(68)
	Frequency	1	2	3	4	5	(69)
	Adequacy	1	2	3	4	5	(70)
*12. PSYCHIATRISTS from Mental Health Services (Guidance Clinics)	Kind	1	2	3	4	5	(71)
	Frequency	1	2	3	4	5	(72)
	Adequacy	1	2	3	4	5	(73)
School System	Kind	1	2	3	4	5	(74)
	Frequency	1	2	3	4	5	(75)
	Adequacy	1	2	3	4	5	(76)
Contracted	Kind	1	2	3	4	5	(77)
	Frequency	1	2	3	4	5	(78)
	Adequacy	1	2	3	4	5	(79)
Glenrose or Calgary Childrens Hospital	Kind	1	2	3	4	5	(80)
	Frequency	1	2	3	4	5	(81)
	Adequacy	1	2	3	4	5	(82)

KIND OF SERVICE	FREQUENCY OF SERVICE	ADEQUACY OF SERVICE
1. None	1. Never	1. Seldom or Never Useful
2. Diagnosis, for placement purposes	2. Infrequently	2. Sometimes Useful
3. Program Planning	3. Sometimes	3. Useful about half the time
4. Follow-up Consultation	4. Frequently	4. Often Useful
5. Inservice	5. Very Frequently	5. Very Often Useful

*13. SOCIAL WORKERS ETC. FROM Mental Health Services (Guidance Clinics)	Kind	1	2	3	4	5	(83)
	Frequency	1	2	3	4	5	(84)
	Adequacy	1	2	3	4	5	(85)
Division of Services for the Handicapped	Kind	1	2	3	4	5	(86)
	Frequency	1	2	3	4	5	(87)
	Adequacy	1	2	3	4	5	(88)
Employed by School Systems	Kind	1	2	3	4	5	(89)
	Frequency	1	2	3	4	5	(90)
	Adequacy	1	2	3	4	5	(91)
Other Gov't Agencies (Dept. of Social Services & Community Health, including these hospitals: Glenrose, Calgary Children's, Camsell)	Kind	1	2	3	4	5	(92)
	Frequency	1	2	3	4	5	(93)
	Adequacy	1	2	3	4	5	(94)
*14. HEALTH PERSONNEL FROM Health Units or City Boards of Health	Kind	1	2	3	4	5	(95)
	Frequency	1	2	3	4	5	(96)
	Adequacy	1	2	3	4	5	(97)
Family Physician	Kind	1	2	3	4	5	(98)
	Frequency	1	2	3	4	5	(99)
	Adequacy	1	2	3	4	5	(100)
Specialists (pediatricians, neurologists, opthamoligists, physio and occupational therapists, others)	Kind	1	2 1	3	4	5	(101)
	Frequency	1	2 1	3	4	5	(102)
	Adequacy	1	2 1	3	4	5	(103)
*15. ALBERTA EDUCATION CONSULTANTS (include guidance, curriculum and special ed; exclude LAC or LAFS)	Kind	1	2	3	4	5	(104)
	Frequency	1	2	3	4	5	(105)
	Adequacy	1	2	3	4	5	(106)
*16. LAC or LAFS CONSULTANTS (exclude Educational or School Psychologists, speech therapist, and psychologists)	Kind	1	2	3	4	5	(107)
	Frequency	1	2	3	4	5	(108)
	Adequacy	1	2	3	4	5	(109)

KIND OF SERVICE	FREQUENCY OF SERVICE	ADEQUACY OF SERVICE
1. None	1. Never	1. Seldom or Never Useful
2. Diagnosis, for placement purposes	2. Infrequently	2. Sometimes Useful
3. Program Planning	3. Sometimes	3. Useful about half the time
4. Follow-up Consultation	4. Frequently	4. Often Useful
5. Inservice	5. Very Frequently	5. Very Often Useful

*17. SPEECH THERAPY/PATHOLOGY from Health Units or City Boards of Health	Kind	1	2	3	4	5	(110)
	Frequency	1	2	3	4	5	(111)
	Adequacy	1	2	3	4	5	(112)
School System	Kind	1	2	3	4	5	(113)
	Frequency	1	2	3	4	5	(114)
	Adequacy	1	2	3	4	5	(115)
Contracted	Kind	1	2	3	4	5	(116)
	Frequency	1	2	3	4	5	(117)
	Adequacy	1	2	3	4	5	(118)
LAC	Kind	1	2	3	4	5	(119)
	Frequency	1	2	3	4	5	(120)
	Adequacy	1	2	3	4	5	(121)
*18. SCHOOL SYSTEM PERSONNEL Guidance-Counsellors -Directors -Consultants -etc.	Kind	1	2	3	4	5	(122)
	Frequency	1	2	3	4	5	(123)
	Adequacy	1	2	3	4	5	(124)
Special Education -Directors -Remediation Consultants -Bureau of Child Study -Others	Kind	1	2	3	4	5	(125)
	Frequency	1	2	3	4	5	(126)
	Adequacy	1	2	3	4	5	(127)
Consultants or Supervisors (Language Arts, Reading, Arithmetic, etc.)	Kind	1	2	3	4	5	(128)
	Frequency	1	2	3	4	5	(129)
	Adequacy	1	2	3	4	5	(130)
School-Based Administrators	Kind	1	2	3	4	5	(131)
	Frequency	1	2	3	4	5	(132)
	Adequacy	1	2	3	4	5	(133)
Centrally-based Administrators (Asst. Superintendents, Superintendents, Curriculum Directors)	Kind	1	2	3	4	5	(134)
	Frequency	1	2	3	4	5	(135)
	Adequacy	1	2	3	4	5	(136)
*19. FREE UNIVERSITY CLINICS	Kind	1	2	3	4	5	(137)
	Frequency	1	2	3	4	5	(138)
	Adequacy	1	2	3	4	5	(139)

*SUPPORT SERVICES: OPEN-ENDED COMMENTS

additional observations, suggestions for change, improvements etc.
diagnosis for placement only

____

____

____

____

diagnosis for placement and for program planning

____

____

____

____

program planning

____

____

____

____

follow-up consultations

____

____

____

____

inservice

____

____

____

____

other

____

____

____

____

SUPPORT SERVICE TO OTHER TEACHERS PROVIDED BY SPECIAL CLASS TEACHERS

In varying degrees, Special Class Teachers provide consultative assistance to other teachers. The items which follow attempt to gather information about this consultant role.

*Do administrators expect Special Class Teachers to provide consultative service to other teachers?
Generally Yes (140)
Generally No (141)

*Is the consulting role facilitated by administrators?
Generally Yes (142)
Generally No (143)

Please use the following scales in responding to items 144-179.

*SPECIAL TEACHER'S WILLINGNESS TO PROVIDE SERVICE	*OTHER TEACHER'S WILLINGNESS TO RECEIVE SERVICE	*FREQUENCY OF ACTUAL SERVICE	*ADEQUACY
1. Very unwilling	1. Very unwilling	1. Rarely or Never	1. Very Inadequate
2. Unwilling	2. Unwilling	2. Infrequently	2. Inadequate
3. Sometimes willing, sometimes unwilling	3. Sometimes willing, sometimes unwilling	3. Sometimes	3. Sometimes adequate, sometimes inadequate
4. Willing	4. Willing	4. Frequently	4. Adequate
5. Very willing	5. Very willing	5. Very Frequently	5. Very adequate

20. ASSISTING OTHER TEACHER DIAGNOSE PROBLEMS AND PLAN PROGRAMS CLASSIFIED AS

Behaviour & Social-Emotional	Willingness to provide	1	2	3	4	5	(144)
	Willingness to receive	1	2	3	4	5	(145)
	Frequency	1	2	3	4	5	(146)
	Adequacy	1	2	3	4	5	(147)
Reading	Willingness to provide	1	2	3	4	5	(148)
	Willingness to receive	1	2	3	4	5	(149)
	Frequency	1	2	3	4	5	(150)
	Adequacy	1	2	3	4	5	(151)
Listening	Willingness to provide	1	2	3	4	5	(152)
	Willingness to receive	1	2	3	4	5	(153)
	Frequency	1	2	3	4	5	(154)
	Adequacy	1	2	3	4	5	(155)
Writing	Willingness to provide	1	2	3	4	5	(156)
	Willingness to receive	1	2	3	4	5	(157)
	Frequency	1	2	3	4	5	(158)
	Adequacy	1	2	3	4	5	(159)
Speaking	Willingness to provide	1	2	3	4	5	(160)
	Willingness to receive	1	2	3	4	5	(161)
	Frequency	1	2	3	4	5	(162)
	Adequacy	1	2	3	4	5	(163)
Arithmetic	Willingness to provide	1	2	3	4	5	(164)
	Willingness to receive	1	2	3	4	5	(165)
	Frequency	1	2	3	4	5	(166)
	Adequacy	1	2	3	4	5	(167)
Perception (visual, auditory, tactile) and Motor	Willingness to provide	1	2	3	4	5	(168)
	Willingness to receive	1	2	3	4	5	(169)
	Frequency	1	2	3	4	5	(170)
	Adequacy	1	2	3	4	5	(171)

SPECIAL TEACHER'S WILLINGNESS TO PROVIDE SERVICE	OTHER TEACHER'S WILLINGNESS TO RECEIVE SERVICE	FREQUENCY OF ACTUAL SERVICE	ADEQUACY
1. Very unwilling	1. Very unwilling	1. Rarely or Never	1. Very Inadequate
2. Unwilling	2. Unwilling	2. Infrequently	2. Inadequate
3. Sometimes willing, sometimes unwilling	3. Sometimes willing, sometimes unwilling	3. Sometimes	3. Sometimes adequate, sometimes inadequate
4. Willing	4. Willing	4. Frequently	4. Adequate
5. Very willing	5. Very willing	5. Very Frequently	5. Very adequate

21. FOLLOW-UP CONSULTATION WITH OTHER TEACHERS	Willingness to provide	1	2	3	4	5	(172)
	Willingness to receive	1	2	3	4	5	(173)
	Frequency	1	2	3	4	5	(174)
	Adequacy	1	2	3	4	5	(175)
22. ASSISTING IN PROVIDING INSERVICE EDUCATION FOR OTHER TEACHERS	Willingness to provide	1	2	3	4	5	(176)
	Willingness to receive	1	2	3	4	5	(177)
	Frequency	1	2	3	4	5	(178)
	Adequacy	1	2	3	4	5	(179)

*COMMENTS ON SPECIAL TEACHER'S ROLE IN ASSISTING OTHERS

TEACHING AND LEARNING IN THE SPECIAL CLASS

The information from this section of the survey will be used in providing summary information concerning perceptions about the variety of teaching and learning situations which prevail throughout the province. The summaries will be helpful in improving instruction.

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23. JUDGEMENTS ABOUT MATERIALS AND EQUIPMENT

USEFUL AND VERY USEFUL — FREQUENCY OF USE (✓)

Title (name)	Supplier	Seldom	Moderately	Often

INEFFECTIVE OR NOT USEFUL — FREQUENCY OF USE (✓)

Title (name)	Supplier	Seldom	Moderately	Often

SCHEDULING (Timetabling) IN USE

24. Sizes of groups in Special Classroom during the week:

SIZES OF GROUPS IN SPECIAL CLASSROOM DURING THE WEEK			AVERAGE LENGTH OF REMEDIATION: TIME PER STUDENT IN EACH GROUP PER DAY IN SPECIAL CLASS	
Smallest group:	___ student(s)	(180)	___ minutes	(183)
Largest group:	___ students	(181)	___ minutes	(184)
Average group:	___ students	(182)	___ minutes	(185)
			____ Total remedial teaching minutes per week	(186)

25. Average number of consultation contacts with other teachers per week is ____ (187). Average length of contact is ____ minutes (188) ____ total contact-minutes per week (189).

26. EFFICACY AND PROPORTION OF TIME FOR PEDOGICAL PRACTICES EMPLOYED

Please use the following scales:

PROPORTION OF TOTAL TEACHING TIME	EFFICACY (efficiency) AND PRODUCTIVENESS OF THE METHOD
1. Not used (or used rarely)	1. Very ineffective
2. Less than 5%	2. Ineffective
3. 5 - 10%	3. Somewhat effective
4. 11 - 20%	4. Effective
5. 21 - 100%	5. Very effective

TEACHING	EXTENT AND ADEQUACY	RATING
Teacher	Time	1 2 3 4 5 (190)
	Efficacy	1 2 3 4 5 (191)
Paid Aide	Time	1 2 3 4 5 (192)
	Efficacy	1 2 3 4 5 (193)
Volunteer Aide (including parent)	Time	1 2 3 4 5 (194)
	Efficacy	1 2 3 4 5 (195)
Student Tutor	Time	1 2 3 4 5 (196)
	Efficacy	1 2 3 4 5 (197)
Independent Study (little assistance from teacher, aide or machines)	Time	1 2 3 4 5 (198)
	Efficacy	1 2 3 4 5 (199)
Teaching Machines (language master, listening station, voice mirror, tape recorder, etc.)	Time	1 2 3 4 5 (200)
	Efficacy	1 2 3 4 5 (201)
Pairs Practice (two remedial pupils share an activity)	Time	1 2 3 4 5 (202)
	Efficacy	1 2 3 4 5 (203)

27. DIAGNOSIS, PROGRAM PLANNING, PROGRAM IMPLEMENTATION (teaching) AND FOLLOW-UP: RESPONSIBILITY, ADEQUACY AND CONGRUENCY

Items 232 - 203 seek answers to these questions:

1. How are diagnosis and program planning shared between the teacher and others?
2. How adequate were the diagnosis, program planning and teaching?
3. How congruent (how closely matched) is the plan to the diagnosis, and the implementation (teaching) to the plan?

Please use these rating scales:

cont. page 9

PROPORTION OF PUPILS	ADEQUACY	CONGRUENCY WITH DIAGNOSIS OR PLAN
1. None	1. Very inadequate	1. Very Different
2. Less than 5%	2. Inadequate	2. Not Related
3. 5 - 10%	3. Sometimes adequate Sometimes inadequate	3. Somewhat Similar
4. 11 - 20%	4. Adequate	4. Quite Similar
5. 21 - 100%	5. Very adequate	5. Very Similar

READING AND SPELLING						
Reading and Spelling Diagnosis						
By self - Proportion of pupils	1	2	3	4	5	(204)
- Adequacy	1	2	3	4	5	(205)
By others - Proportion of pupils	1	2	3	4	5	(206)
- Adequacy	1	2	3	4	5	(207)
Program Planning (Reading and Spelling)						
By self - Proportion	1	2	3	4	5	(208)
- Adequacy	1	2	3	4	5	(209)
- Congruency with diagnosis	1	2	3	4	5	(210)
By others - Proportion	1	2	3	4	5	(211)
- Adequacy	1	2	3	4	5	(212)
- Congruency with diagnosis	1	2	3	4	5	(213)
Teaching Reading and Spelling						
By self - Adequacy	1	2	3	4	5	(214)
- Congruency with plan	1	2	3	4	5	(215)
LANGUAGE (Writing, speaking, listening)						
Language Diagnosis						
By self - Proportion of pupils	1	2	3	4	5	(216)
- Adequacy	1	2	3	4	5	(217)
By others - Proportion of pupils	1	2	3	4	5	(218)
- Adequacy	1	2	3	4	5	(219)
Program Planning (Writing, speaking, listening)						
By self - Proportion of pupils	1	2	3	4	5	(220)
- Adequacy	1	2	3	4	5	(221)
- Congruency with diagnosis	1	2	3	4	5	(222)
By others - Proportion	1	2	3	4	5	(223)
- Adequacy	1	2	3	4	5	(224)
- Congruency with diagnosis	1	2	3	4	5	(225)
Teaching Language						
By self - Adequacy	1	2	3	4	5	(226)
- Congruency with plan	1	2	3	4	5	(227)
ARITHMETIC						
Arithmetic Diagnosis						
By self - Proportion of pupils	1	2	3	4	5	(228)
- Adequacy	1	2	3	4	5	(229)
By others - Proportion of pupils	1	2	3	4	5	(230)
- Adequacy	1	2	3	4	5	(231)
Program Planning (Arithmetic)						
By self - Proportion of pupils	1	2	3	4	5	(232)
- Adequacy	1	2	3	4	5	(233)
- Congruency with diagnosis	1	2	3	4	5	(234)
By others - Proportion of pupils	1	2	3	4	5	(235)
- Adequacy	1	2	3	4	5	(236)
- Congruency with diagnosis	1	2	3	4	5	(237)
Teaching Arithmetic						
By self - Adequacy	1	2	3	4	5	(238)
- Congruency with plan	1	2	3	4	5	(239)

PROPORTION OF PUPILS	ADEQUACY	CONGRUENCY WITH DIAGNOSIS OR PLAN
1. None	1. Very Inadequate	1. Very Different
2. Less than 5%	2. Inadequate	2. Not Related
3. 5 - 10%	3. Sometimes adequate Sometimes inadequate	3. Somewhat Similar
4. 11 - 20%	4. Adequate	4. Quite Similar
5. 21 - 100%	5. Very Adequate	5. Very Similar

SOCIAL-EMOTIONAL

Social-Emotional Diagnosis

By self - Proportion of pupils	1	2	3	4	5	(240)
- Adequacy	1	2	3	4	5	(241)
By others - Proportion of pupils	1	2	3	4	5	(242)
- Adequacy	1	2	3	4	5	(243)

Planning Programs (Social-emotional)

By-self - Proportion of pupils	1	2	3	4	5	(244)
- Adequacy	1	2	3	4	5	(245)
- Congruency with diagnosis	1	2	3	4	5	(246)
By others - Proportion of pupils	1	2	3	4	5	(247)
- Adequacy	1	2	3	4	5	(248)
- Congruency with diagnosis	1	2	3	4	5	(249)

Teaching (remediating) in the social-emotional area

By self - Adequacy	1	2	3	4	5	(250)
- Congruency with plan	1	2	3	4	5	(251)

PERCEPTION AND/OR MOTOR SKILLS

Perceptual/Motor Diagnosis

By self - Proportion of pupils	1	2	3	4	5	(252)
- Adequacy	1	2	3	4	5	(253)
By others - Proportion of pupils	1	2	3	4	5	(254)
- Adequacy	1	2	3	4	5	(255)

Program Planning (perception/motor)

By self - Proportion of pupils	1	2	3	4	5	(256)
- Adequacy	1	2	3	4	5	(257)
- Congruency with diagnosis	1	2	3	4	5	(258)
By others - Proportion of pupils	1	2	3	4	5	(259)
- Adequacy	1	2	3	4	5	(260)
- Congruency with diagnosis	1	2	3	4	5	(261)

Teaching (remediating) Perception and/or Motor

By self - Adequacy	1	2	3	4	5	(262)
- Congruency with plan	1	2	3	4	5	(263)

FOLLOW-UP OF PUPIL PROGRESS (By self: to other classrooms;
By others: to your class or the school)

By self - Proportion of pupils	1	2	3	4	5	(264)
- Adequacy	1	2	3	4	5	(265)
- Congruency with plan	1	2	3	4	5	(266)
By others - Proportion of pupils	1	2	3	4	5	(267)
- Adequacy	1	2	3	4	5	(268)
- Congruency with plan	1	2	3	4	5	(269)

28. WHO DECIDES ABOUT PLACEMENT AND REMOVAL OF PUPILS FROM THE SPECIAL PROGRAM?

Please indicate the **proportion** of students for whom the following arrangements apply **for either** placement or removal.

PROPORTION	ADEQUACY
1. Nil or very few	1. Totally inadequate
2. Less than 25%	2. Inadequate
3. 25 - 49%	3. Somewhat adequate
4. 50 - 74%	4. Adequate
5. 75% or more	5. Very adequate

PLACEMENT						
Teachers decide	1	2	3	4	5	(270)
Administrators/Consultants decide	1	2	3	4	5	(271)
Parents decide	1	2	3	4	5	(272)
Adequacy of present arrangements	1	2	3	4	5	(273)
REMOVAL						
Teachers decide	1	2	3	4	5	(274)
Administrators/Consultants decide	1	2	3	4	5	(275)
Parents decide	1	2	3	4	5	(276)
Adequacy of present arrangements	1	2	3	4	5	(277)

Comments regarding placement or removal of pupils